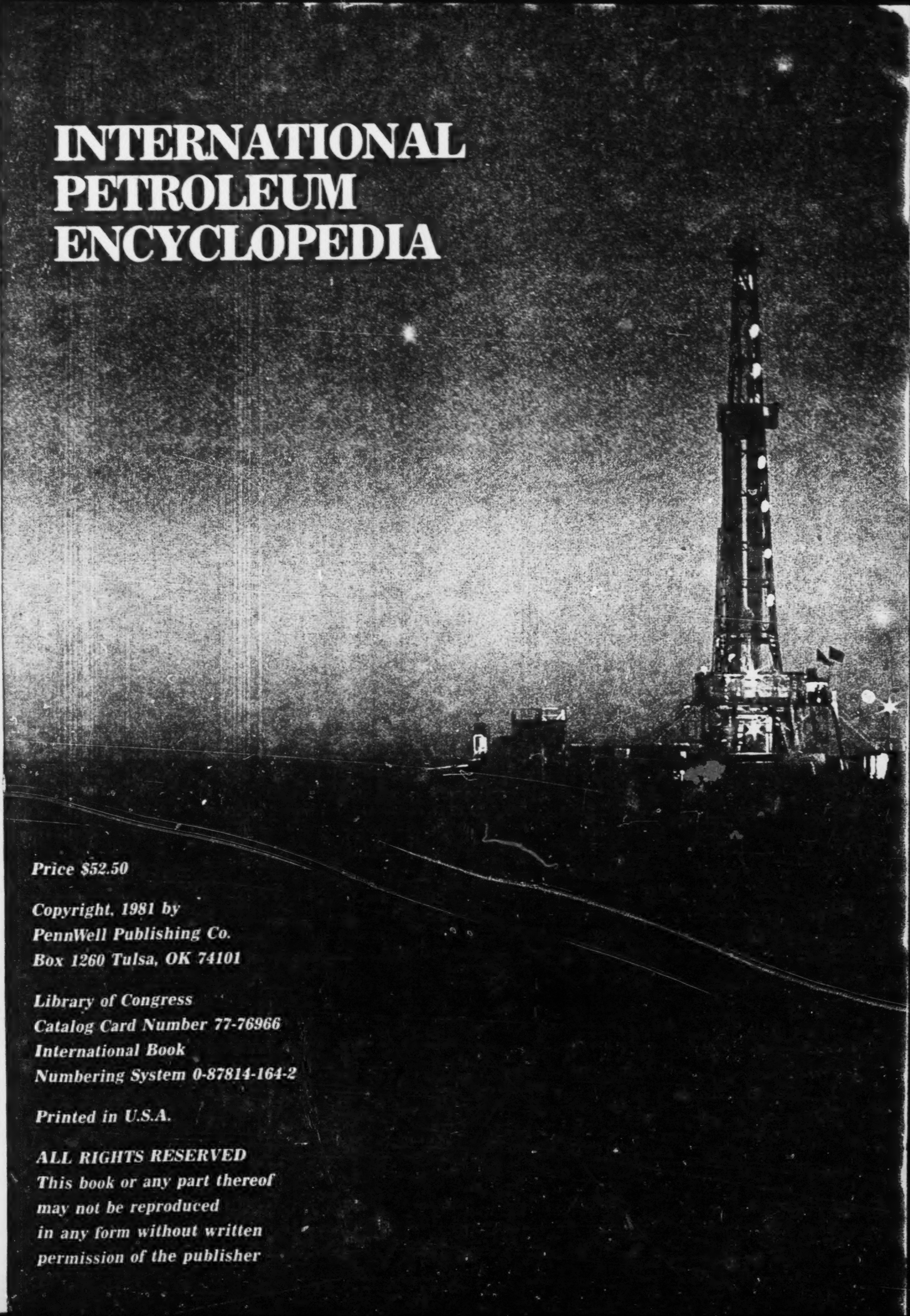

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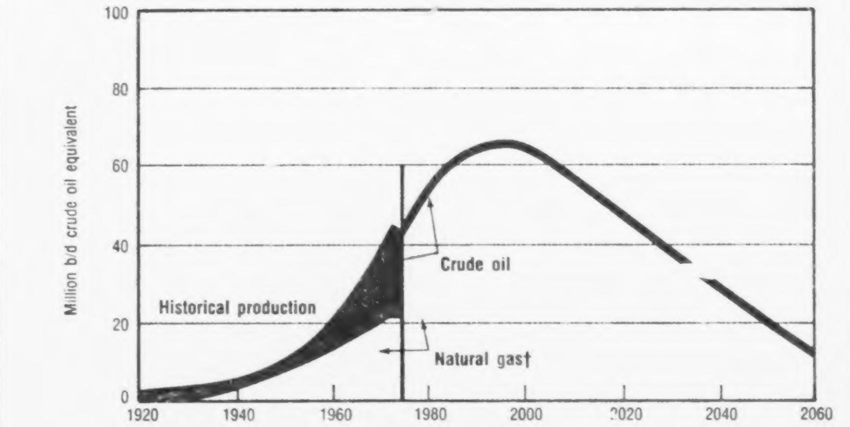
How Shell sees the oil, gas cycle*

1



*World excluding Communist areas. †Includes natural gas liquids. Source: Shell Oil Co.

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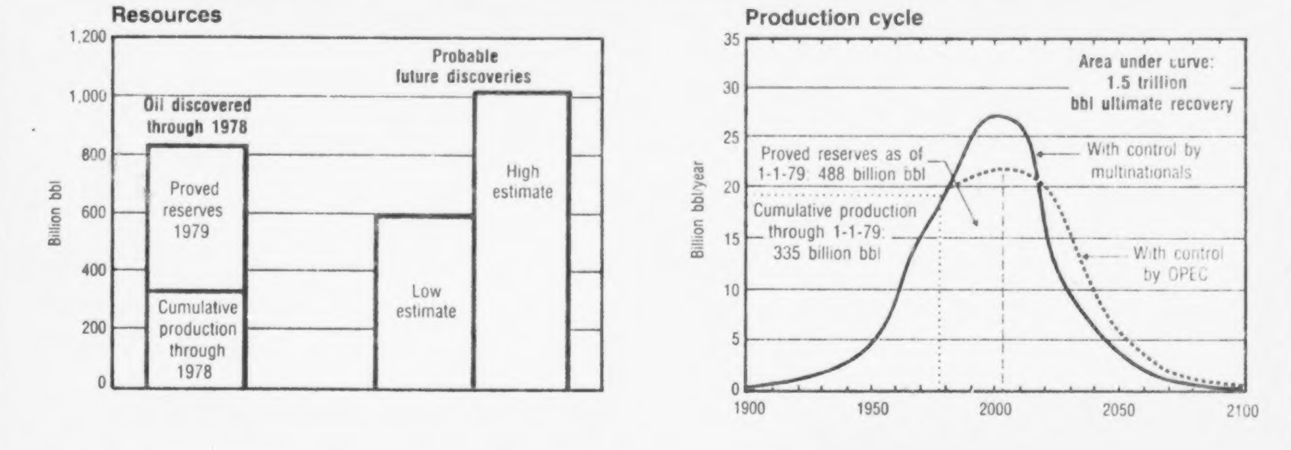
Gulf's outlook for non-Communist crude oil supply

2



Source: Gulf Oil Corp.

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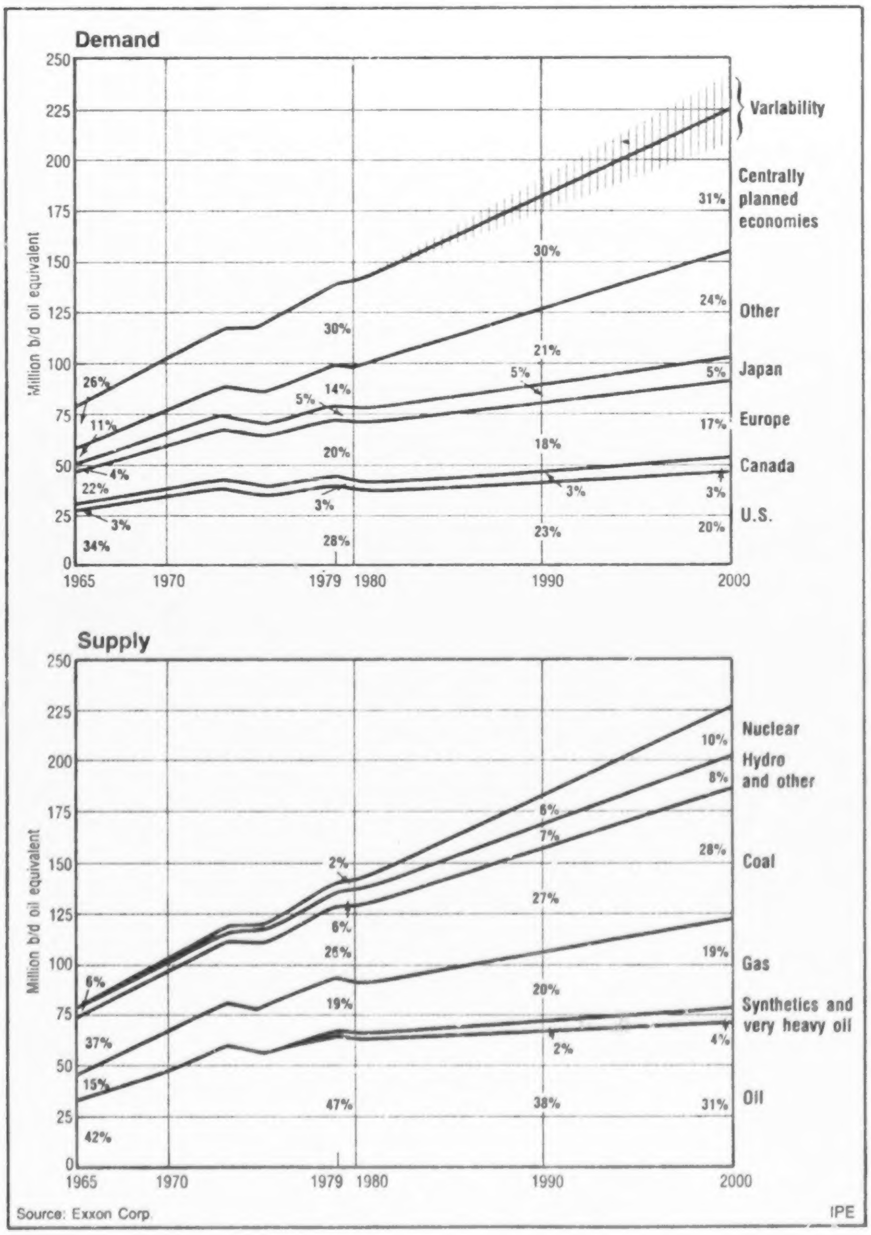
How energy demand/supply pattern will change 3



Source: Exxon Corp.

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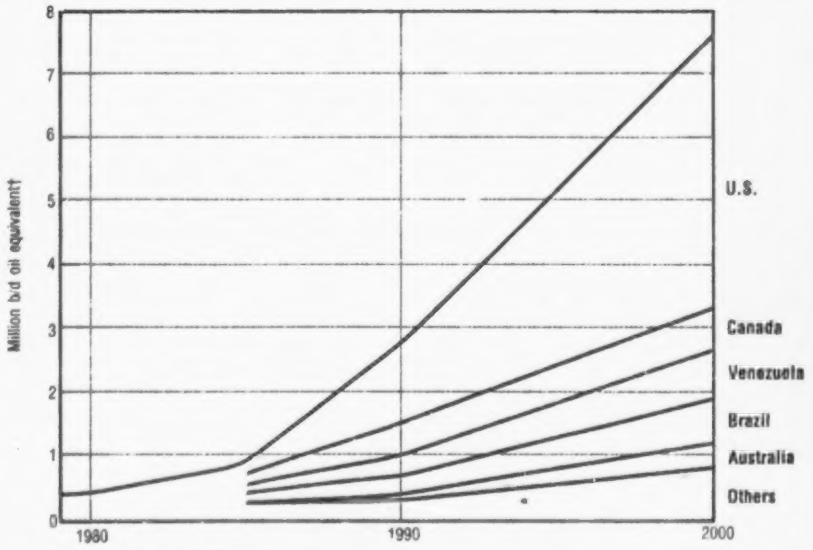
How synfuels, VHO will arise – Table 1

Country	1990 (Percent of oil and gas demand)	2000 (Percent of oil and gas demand)
U.S.	5	18
Canada	15	17
Venezuela	30	55
Brazil	25	34
Australia	3	28
Others	1	2
World excluding CPE	4	9

Source: Exxon Corp.

The outlook for synfuels and VHO*

4



*World excluding centrally planned economies.

†Includes synthetic gas, synthetic liquid fuels, and very heavy oil. Source: Exxon Corp.

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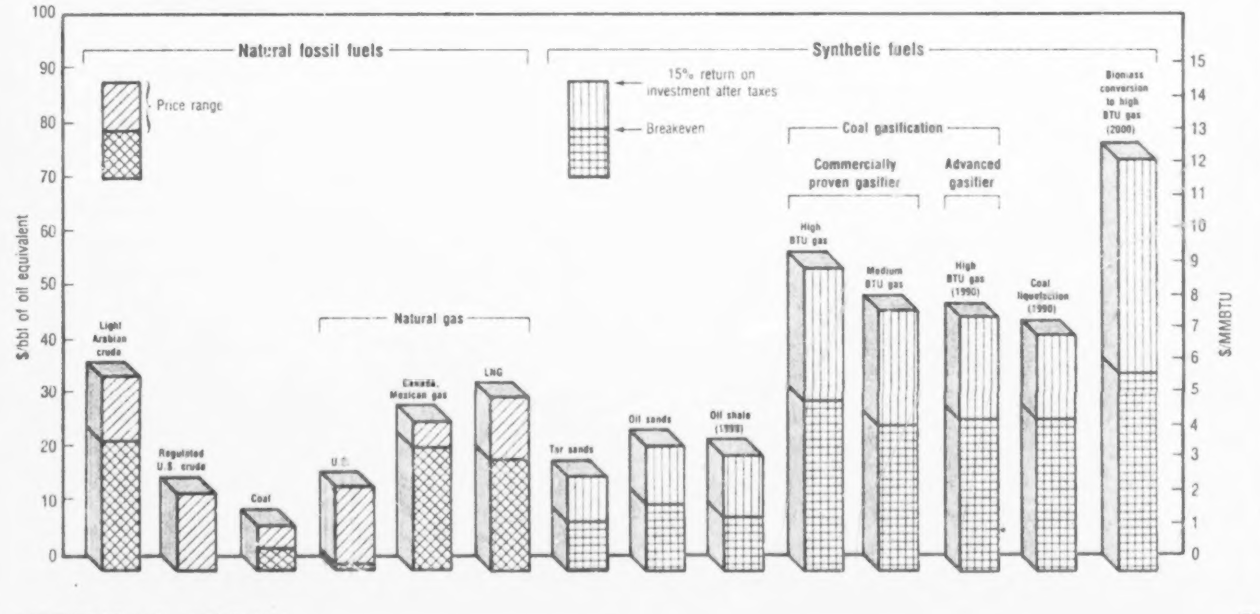
How Bechtel compares the costs of fuel production*

5



*In constant 1979 dollars. Source: Bechtel Inc.

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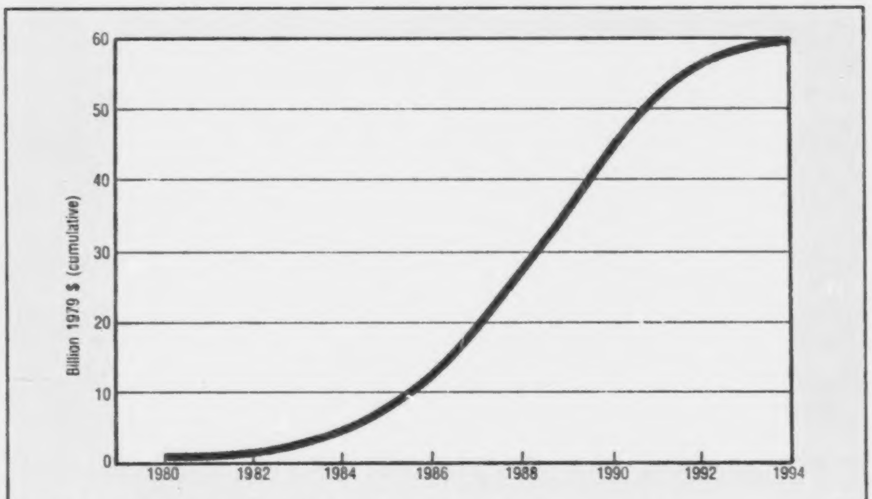
How costs of emerging fuel technologies compare in constant 1979 dollars – Table 2

Fuel technology	Size (Product)	Year of operation	Total capital investment (Million $)	Unit capital investment ($ MMBTU/year	—$/Equivalent bbl— Break-even	15% return on investment after taxes	—$/MMBTU— Break-even	15% return on investment after taxes
Tar sands*	125,000 b/sd	1979	1,800	7	9	†17	1.50	2.80
Oil sands*	125,000 b/sd	1979	2,500	10	12	23	2.00	3.80
Oil shale*	50,000 b/sd	1990	1,080	11	10	22	1.70	3.70
Coal gasification ‡								
Commercially proven								
High BTU gas	250 billion BTU/sd	1979	1,900	23	31	56	5.10	9.30
Medium BTU gas	250 billion BTU/sd	1979	1,600	20	26	48	4.40	8.00
Advanced gasifier								
High BTU gas	250 billion BTU/sd	1990	1,500	18	28	47	4.60	7.90
Coal liquefaction ‡	50,000 b/sd	1990	1,300	13	28	44	4.70	7.30
Biomass-conversion								
Wood to methanol	3,700 b/sd	2000	90	32	14-20	28-42	5-7	10-15
Wood to ethanol	2,500 b/sd	2000	50	20	16-22	32-48	5-7	10-15
Wood to high BTU gas	37 billion BTU/sd	2000	240	20	30-42	60-90	5-7	10-15
Manure to high BTU gas	2 billion BTU/sd	2000	14	20	30-42	60-90	5-7	10-15

*Primary upgrading to synthetic crude oil. †Current OPEC price range for light Arabian crude, $25-36/bbl. ‡Based on coal with heat combustion of 10,000 BTU/lb costed at $1.25/MMBTU delivered.
Source: Bechtel Inc.

Estimated spending for U.S. synfuels* 6



*Based on 1.5 million b/d crude oil equivalent by 1995. Source: Pullman Kellogg

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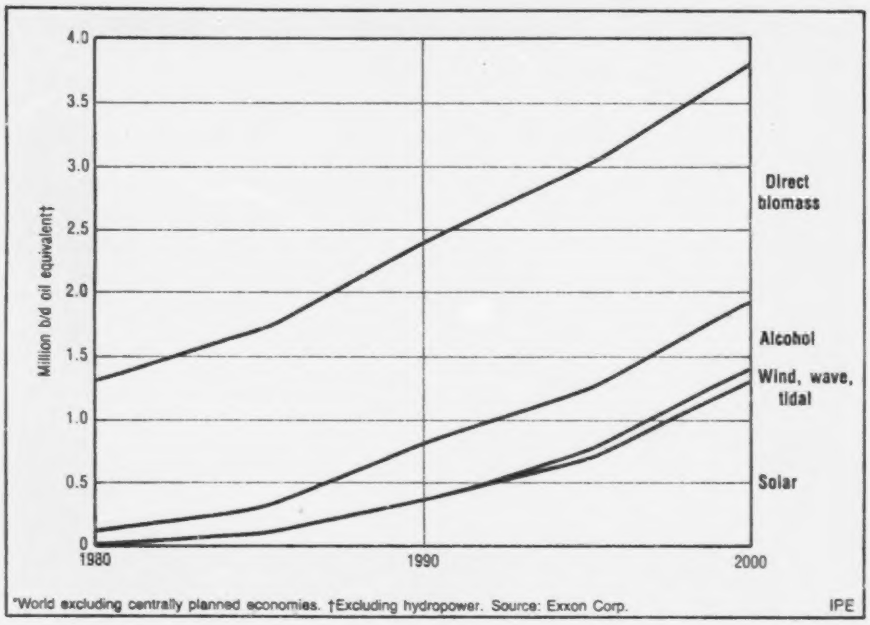
What's ahead for renewable energy supply* 7



*World excluding centrally planned economies. †Excluding hydropower. Source: Exxon Corp.

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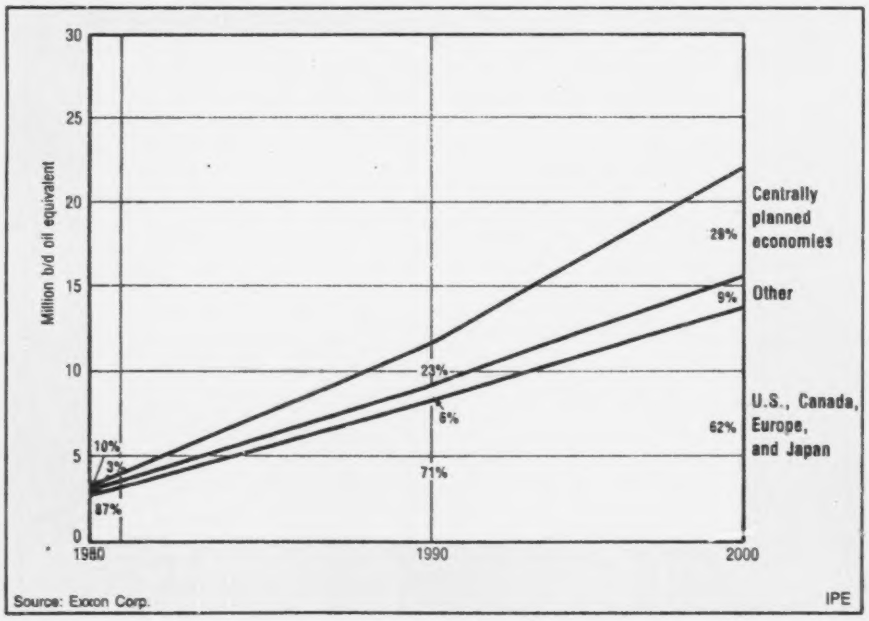
How Exxon sees world nuclear energy supply 8



Source: Exxon Corp.

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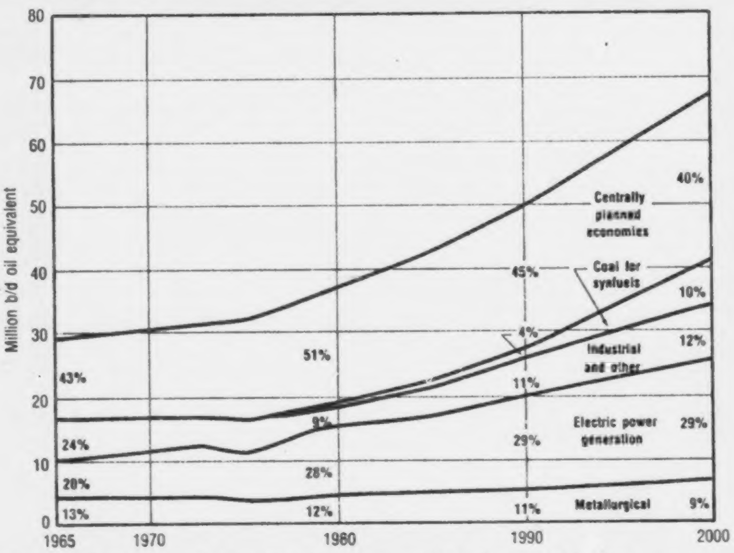
How world coal demand will rise*

9



*End use projections for world excluding centrally planned economics (CPE). Comparable breakdown not available for CPE, for which total demand is shown. Source: Exxon Corp.

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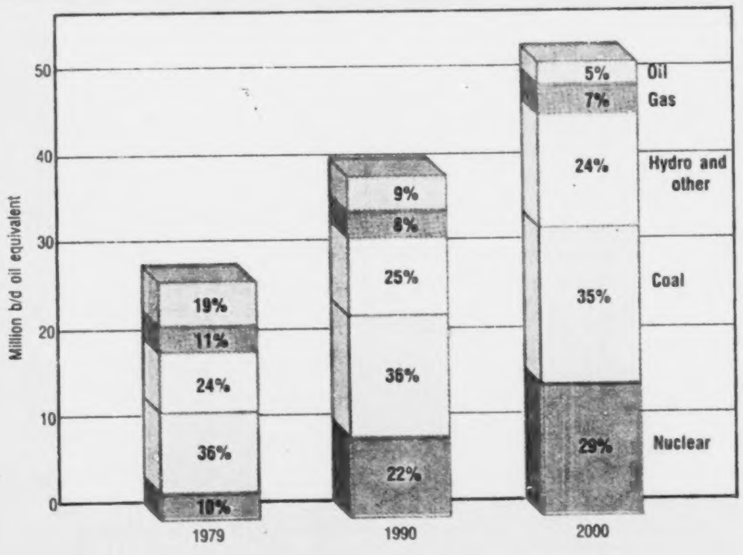
Energy feedstock for electricity production*

10



*World excluding Africa, the Middle East, and centrally planned economies. Source: Exxon Corp.

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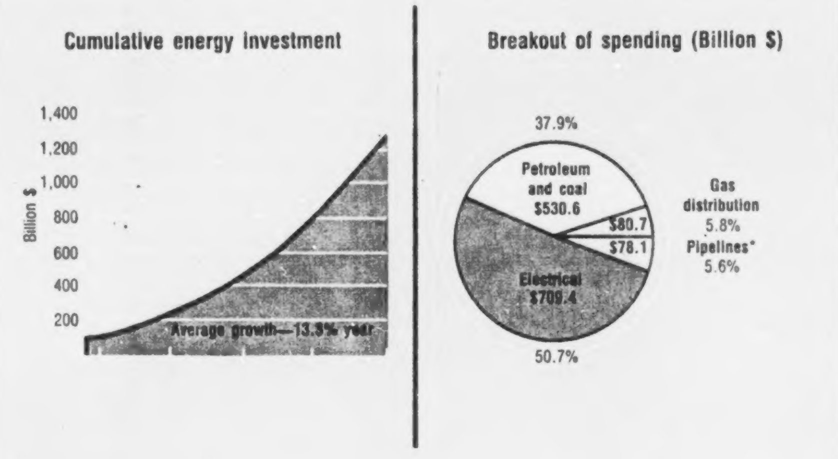
What's required for Canadian energy spending 2

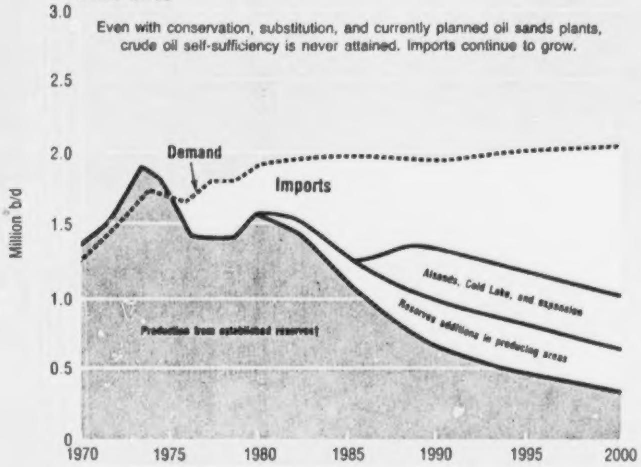


*Excludes Polar Gas Project. Source: Royal Bank of Canada

The outlook for Canadian oil supply/demand*

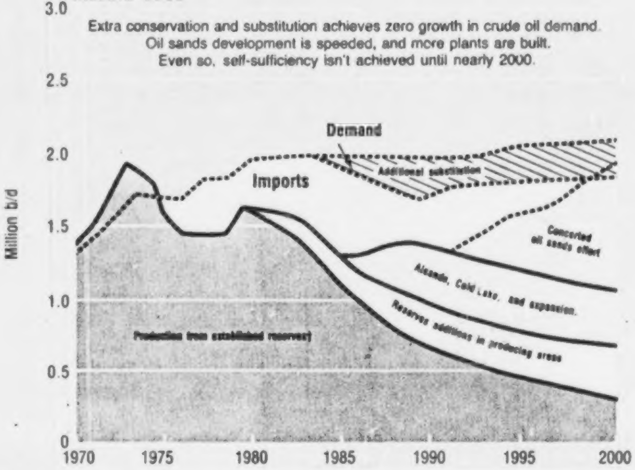
Base Case

Even with conservation, substitution, and currently planned oil sands plants, crude oil self-sufficiency is never attained. Imports continue to grow.



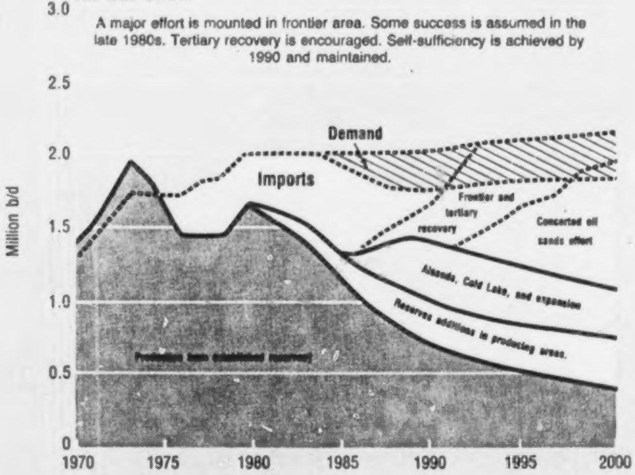
Middle case

Extra conservation and substitution achieves zero growth in crude oil demand. Oil sands development is speeded, and more plants are built. Even so, self-sufficiency isn't achieved until nearly 2000.



All-out effort

A major effort is mounted in frontier area. Some success is assumed in the late 1980s. Tertiary recovery is encouraged. Self-sufficiency is achieved by 1990 and maintained.



*Crude oil and natural gas liquids. †Includes Suncor and Syncrude oil sands plants.
Source: Shell Canada Ltd.

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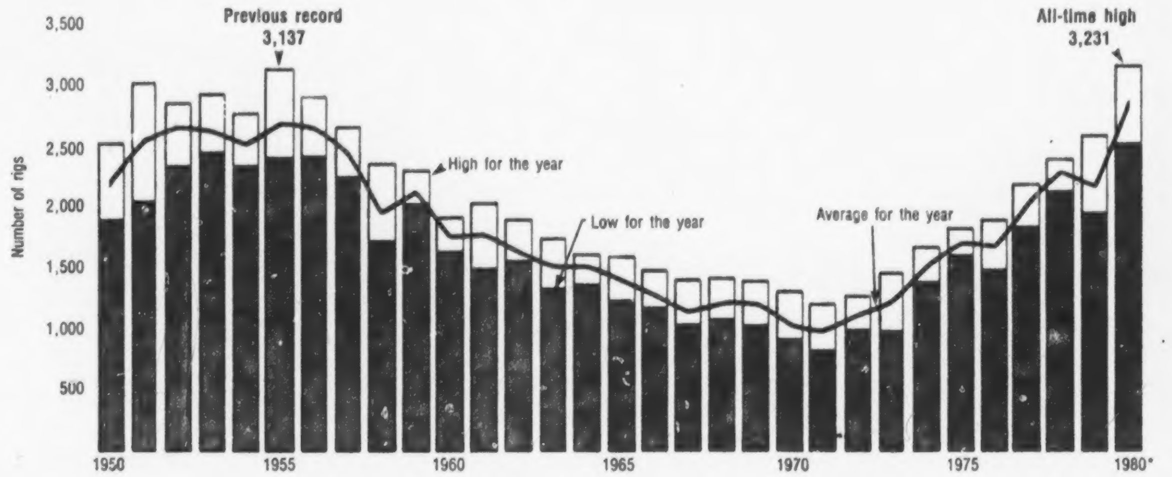
A look at three decades of the U.S. active rig count

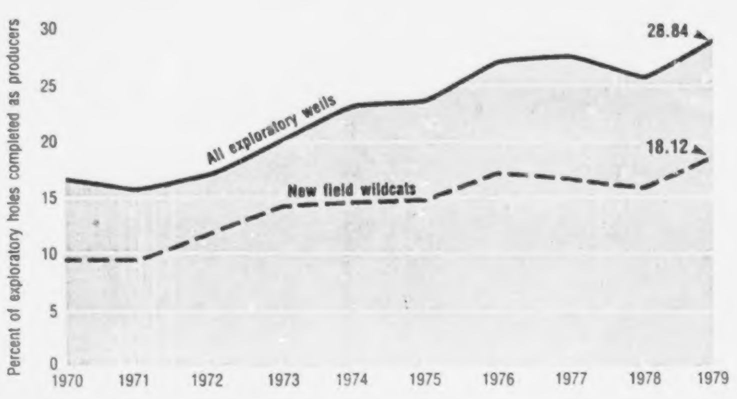


*Year to Nov. 24 Source: Hughes Tool Co.

NORTH AMERICA/IPE ATLAS

A 10-year look at U.S. exploratory success rate

2



Source: American Association of Petroleum Geologists

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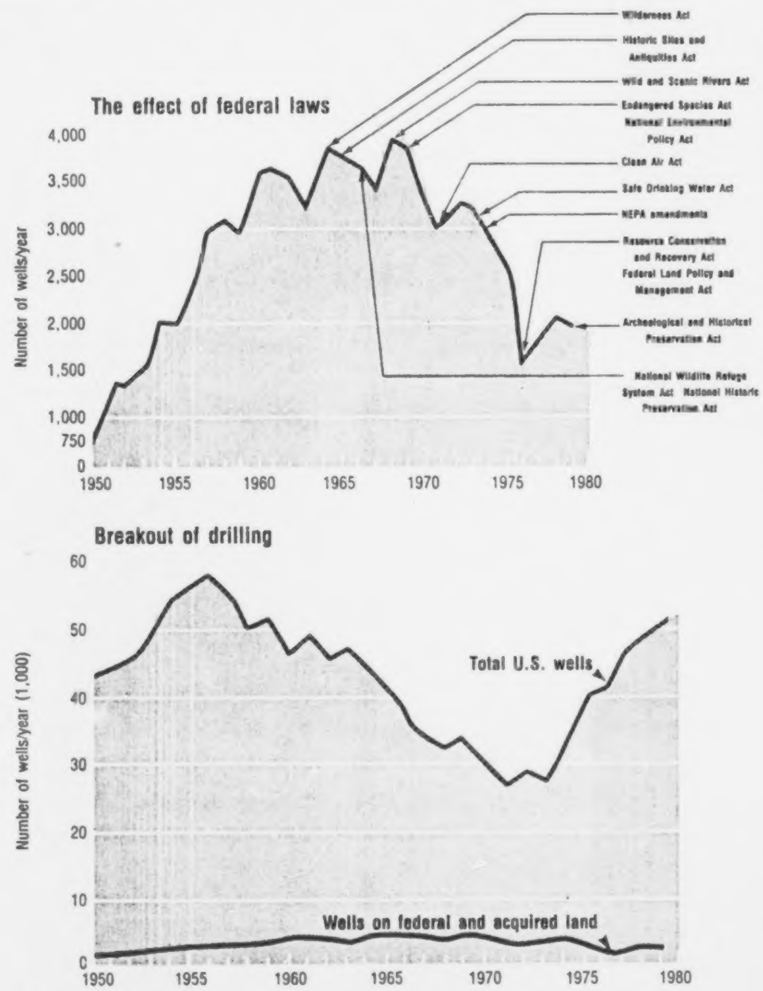
How drilling on federal land has declined*

3



*Onshore only.
Source: Independent Petroleum Association of America from Interior Department and American Petroleum Institute data

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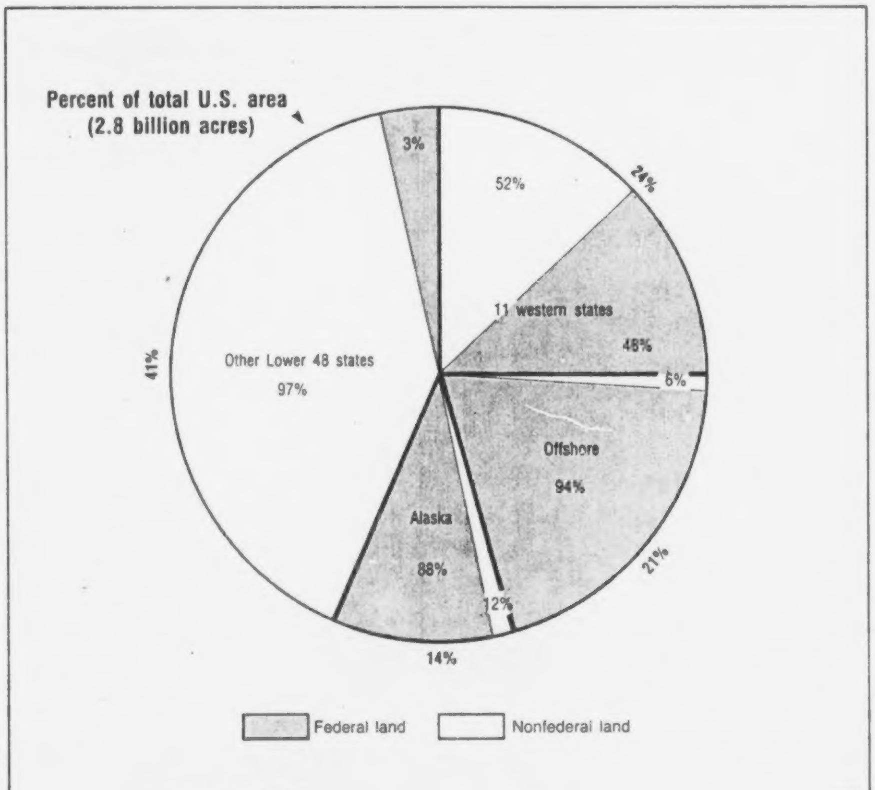
NORTH AMERICA/IPE ATLAS

Where government controls exploration pace

4



Source: Shell Oil Co.

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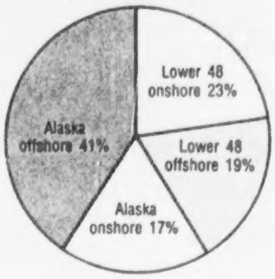
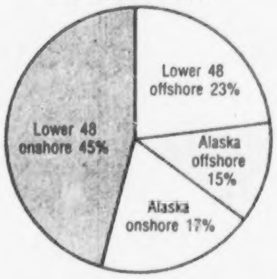
Future discoveries* 5

Oil
60 billion bbl



Gas
315 trillion cu ft



*Total recoverable volumes
Source: Shell Oil Co.

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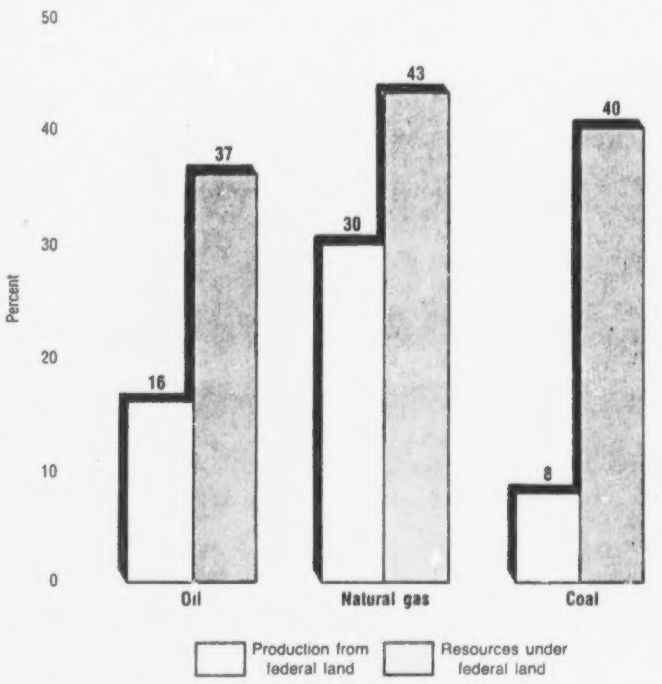
Federal land energy production and resources

6



Source: American Petroleum Institute

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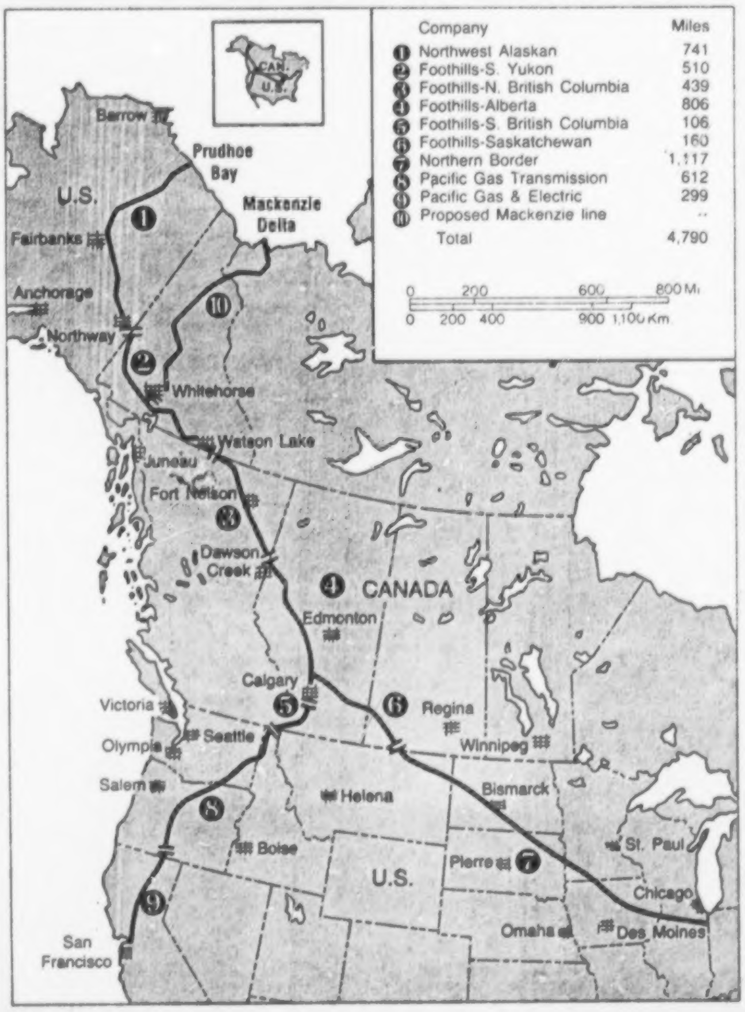
Who will build the Alaska Highway pipeline

7



	Company	Miles
❶	Northwest Alaskan	741
❷	Foothills-S. Yukon	510
❸	Foothills-N. British Columbia	439
❹	Foothills-Alberta	806
❺	Foothills-S. British Columbia	106
❻	Foothills-Saskatchewan	160
❼	Northern Border	1,117
❽	Pacific Gas Transmission	612
❾	Pacific Gas & Electric	299
❿	Proposed Mackenzie line	--
	Total	4,790

CAN.
U.S.
Barrow
Prudhoe Bay
Mackenzie Delta
U.S.
Fairbanks
Anchorage
Northway
Whitehorse
Watson Lake
Juneau
Fort Nelson
Dawson Creek
CANADA
Edmonton
Calgary
Victoria
Olympia
Seattle
Regina
Winnipeg
Salem
Helena
Bismarck
St. Paul
Boise
U.S.
Pierre
Chicago
Omaha
Des Moines
San Francisco
0 200 600 800 Mi
0 200 400 900 1,100 Km

Source: Federal Energy Regulatory Commission

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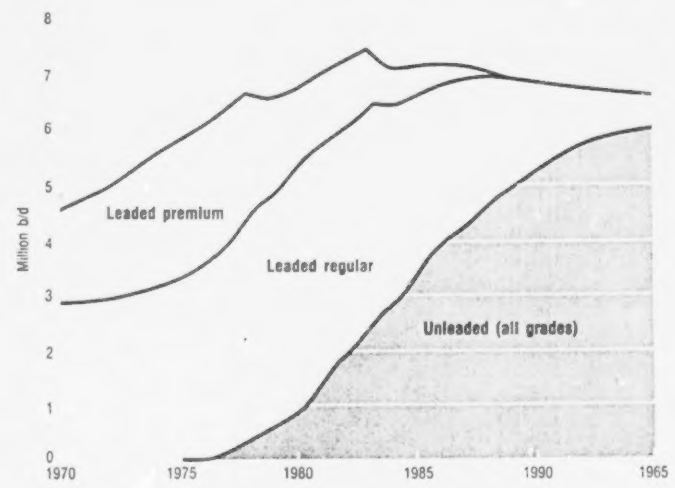
The outlook for U.S. motor gasoline demand

8



Source: Standard Oil Co. of California

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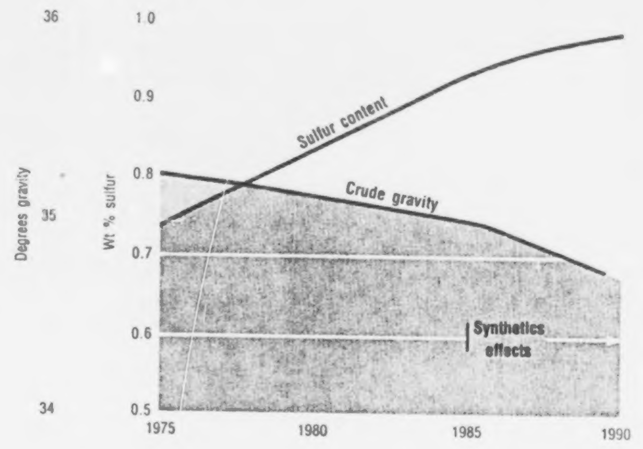
What the future holds for refinery feed quality

9



Source: Exxon Co. U.S.A.

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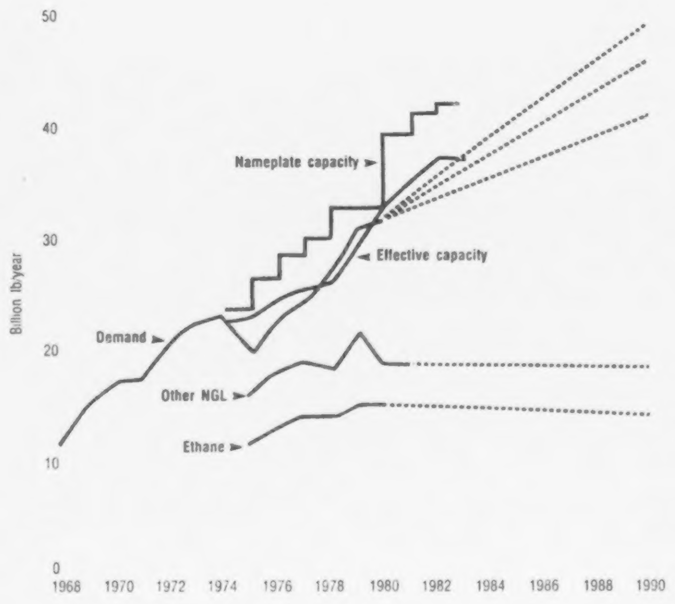
How U.S. ethylene supply/demand could grow

10



Source: Shell Chemical Co.

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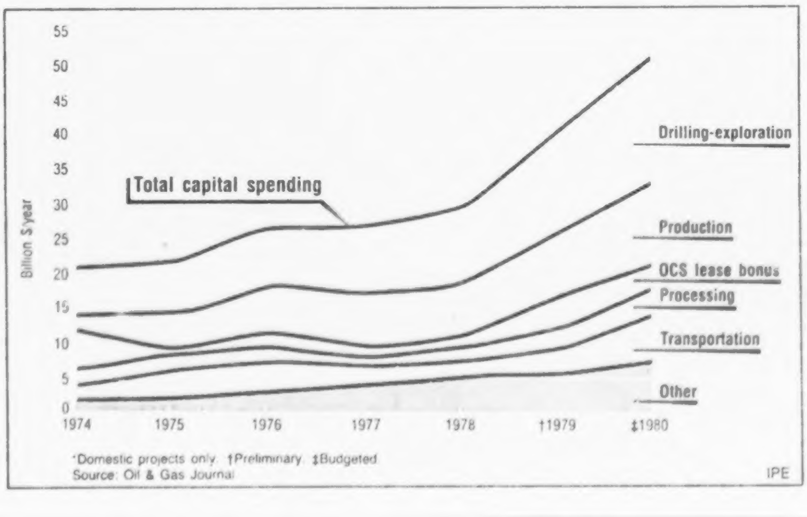
How U.S. industry capital outlay is climbing*



*Domestic projects only. †Preliminary. ‡Budgeted.
Source: Oil & Gas Journal

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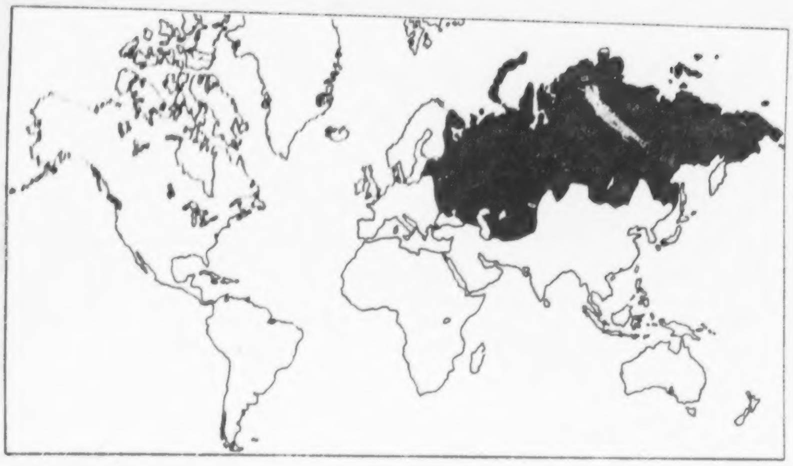
Reserves, resources in major Australian basins*

Basins	Reserves			Cumulative production			Uneconomic resources or awaiting appraisal		
	Crude	Other liquids	Natural gas	Crude	Other liquids	Natural gas	Crude	Other liquids	Natural gas
	Million bbl	Million bbl	Billion cu ft	Million bbl	Million bbl	Billion cu ft	Million bbl	Million bbl	Billion cu ft
Bowen-Surat	3.5	0.9	74.2	21.3	0.3	91.8	0.5	....	49.4
Gippsland	1,457.3	588.1	6,819.3	1,121.5	139.0	805.2	....	....	....
Cooper	43.5	144.8	3,725.7	....	9.3	505.0	....	....	....
Perth	1.8	0.2	236.6	0.3	0.2	211.9	....	....	....
Carnarvon	98.1	3.4	430.8	157.5	0.4	56.5	....	....	....
Adavale	....	....	....	....	....	....	....	....	21.2
Gippsland and Bass	....	....	....	....	....	....	118.1	147.7	1,317.2
Carnarvon, Browse, and Bonaparte Gulf	....	....	....	....	....	....	32.5	819.9	16,417.8
Amadeus	....	....	....	....	....	....	64.7	34.1	900.5
Total	**1,604.2**	**737.4**	**11,286.6**	**1,300.6**	**149.2**	**1,670.4**	**215.8**	**1,001.7**	**18,706.1**

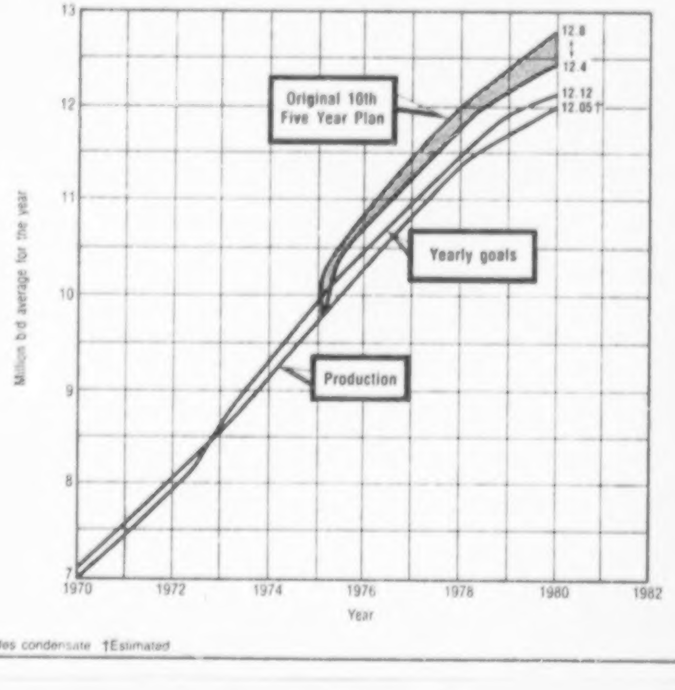
*As of June 30, 1979.
Source: Australian Bureau of Mineral Resources



RUSSIA

AREA:
8,647,250 sq miles
POPULATION:
264,110,000
CAPITAL:
Moscow
MONETARY UNIT:
Ruble

How Soviet oil production lags targets*



*Includes condensate †Estimated

IPE

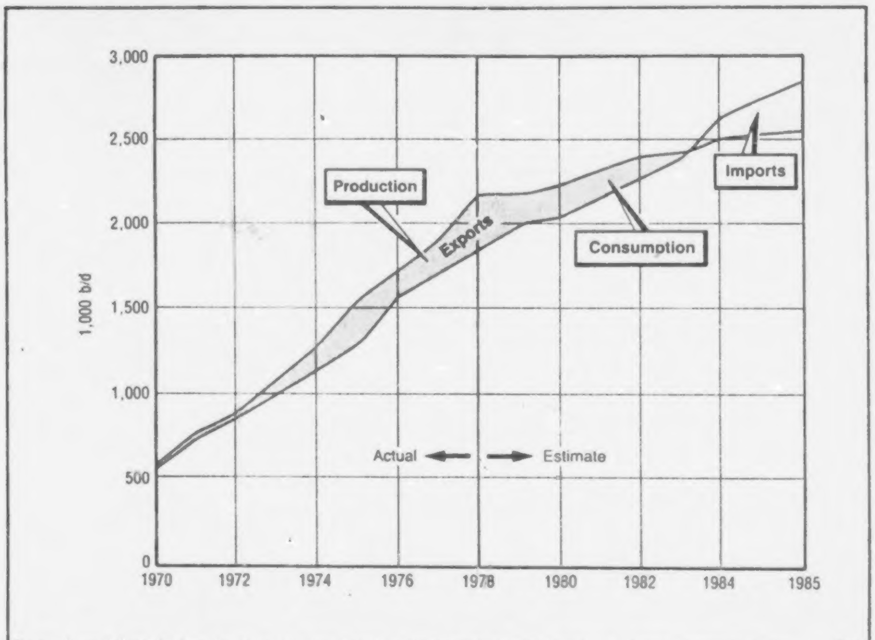
Crude oil and natural gas productions in Nigeria, 1957-1980

Year	Oil production (million bbl)	Gas production (million cu m)	Gas/oil ratio (m^3 bbl)
1957	0.014		
1958	1.874	45.560	24
1959	4.094	139,834	33
1960	6.367	144.260	23
1961	16,802	309.834	18
1962	24.624	486.483	20
1963	27.914	625.406	22
1964	43.997	1028.836	23
1965	99.354	2406.026	24
1966	152.427	2935.942	19
1967	117.120	2668.127	23
1968	51.906	1413.228	27
1968	197.225	4125.524	21
1969	197.225	4125.524	21
1970	395.841	8037.048	20
1971	559.328	12796.325	23
1972	665.281	16796.193	25
1973	750.050	19831.504	26
1974	815.748	20624.234	25
1975	651.393	18436.672	28
1976	756.141	20831.428	28
1977	758.991	20322.946	27
1978	695.488	15756.373	23
1979	*848.920	*5756.374	—
1980	†791.028 894.250	†22300.000	—

Sources: Annual Report, Ministry of Mines and Power, Lagos: AAPG Bulletins. *Oil and Gas Journal, based on daily average production of 2.408 million barrels for the first 8 months of 1979 plus 10% reduced daily average rate of 2.159 million barrels for the rest of 1979. †Estimates: minimum production capacity based on 10% production cut enforcement by NNPC; maximum production capacity based on analysis of world market demand in 1980. Gas production will jump to at least 22 billion cu m upon commissioning the LNG plant at Bonny Island. Detailed information about annual production is published in the statistics of the Ministry of Mines and Power not according to the calendar year but according to the fiscal year of the government, Apr. 1 to Mar. 31. Data have been averaged to conform to calendar year (January-December) for purposes of international data analysis and comparison.

The outlook for China's oil supply/demand

2



Source: Japan National Oil Corp. based on data from China's National Bureau of Statistics and U.S. Central Intelligence Agency. IPE

Ethylene plants

Location	Capacity* (1,000 tons/year)	Licensor/ contractor	On stream date
Shanghai	10-20	Self	1965
Lanchow	40	Lurgi	1969
Qianjin	300	Toyo/Lummus	1976
Shanghai	120	Mitsubishi	1978
Liaoyang	79	French	1978
Kirin	300	Mitsubishi	1980
Taching	300	JGS/S&W	1981
Nanking I	300	Toyo/Lummus	1982
Shengli	300	Toyo/Lummus	1983
Nanking II	300	Toyo/Lummus	1985

*Most figures rounded.

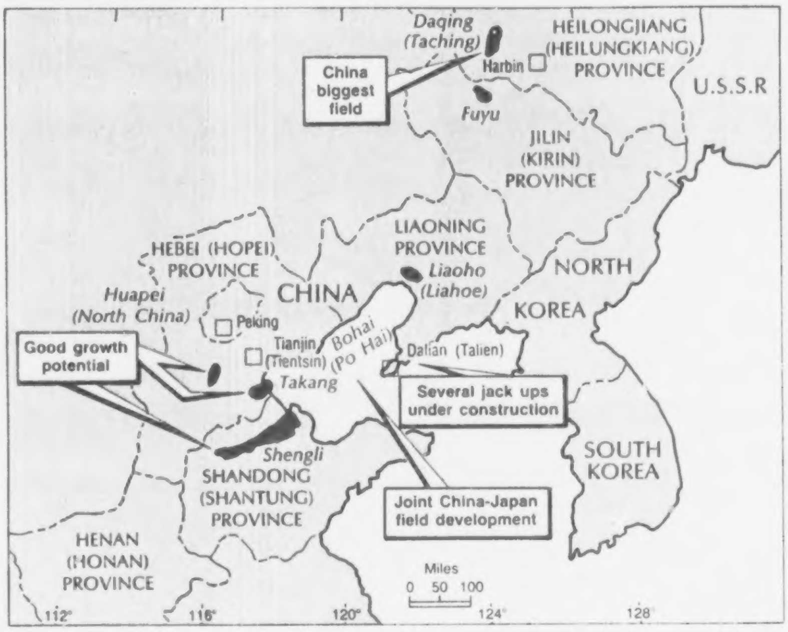
Ethylene-based complexes

Location	Products
Kirin	Acetaldehyde, ethanol, SBR
Lanchow	LDPE* (ICI)†
Liaoyang	HDPE†† (Hoechst), ethylene oxide/glycol, nylon, polyester fiber, polypropylene
Nanking I	HDPE (Mitsui), vinyl chloride, polyester fiber
Nanking II	HDPE (Mitsui), ethylene oxide
Qianjin	LDPE (Sumitomo), acetaldehyde, polyester fiber
Shanghai	HDPE (Mitsubishi), fibers (polyester, acrylic, vinyl)
Taching	LDPE (Uhde), acetaldehyde, ethanol
Tianjin	Methanol, polyester fiber

*LDPE—low density polyethylene. ††HDPE—high density polyethylene. †Polyethylene licensor/contractor in parentheses.

Where China is pressing oil field development

3


Daqing (Taching)
China biggest field
Harbin
HEILONGJIANG (HEILUNGKIANG) PROVINCE
U.S.S.R
Fuyu
JILIN (KIRIN) PROVINCE
LIAONING PROVINCE
Liaoho (Liahoe)
NORTH KOREA
HEBEI (HOPEI) PROVINCE
Huapei (North China)
CHINA
Peking
Tianjin (Tientsin)
Bohai (Po Hai)
Dalian (Talien)
Good growth potential
Takang
Several jack ups under construction
Shengli
SHANDONG (SHANTUNG) PROVINCE
SOUTH KOREA
Joint China-Japan field development
HENAN (HONAN) PROVINCE
Miles
0 50 100
112°
116°
120°
124°
128°

Onshore production outlook

Field	1979	1980	1981	1982	1983	1984	1985
				1,000 b/d			
Daqinq (Taching)	1,060	1,060	1,070	1,070	1,060	1,040	1,030
Shengli	400	420	440	460	480	500	500
Haupei (North China)	260	280	300	320	340	380	400
Liaoho (Liahoe)	100	100	110	100	100	100	100
Fuyu	80	80	90	90	80	80	80
Takang	50	60	80	100	100	110	110
Other	170	200	210	230	280	290	320
Total	**2,1[illegible]**	**2,200**	**2,300**	**2,380**	**2,440**	**2,500**	**2,540**

Source: Production figures from Japan National Oil Corp. based on data from China's National bureau of Statistics and U.S. Central Intelligence Agency.

Table 3

Petrochem capacities

	1,000 tons/year 1978	1985
Acrylonitrile	75	75
Ammonia	4,500	7,000
Acetaldehyde	30	180
Ethylene glycol	60	60
Ethanol	?	250
BTX	60	600
Butadiene	45	120
Polyethylene		
Low density	240	500
High density	40	450
Polypropylene	115	115
Vinyl chloride	35	400
Terephthalic acid		500
Fibers		
Acrylic	35	35
Nylon	50	65
Polyester	180	250

Worldwide oil and gas at a glance

COUNTRY	ESTIMATED PROVED RESERVES 1-1-1981		OIL PRODUCTION			No. of ref.	REFINING Capacity (b/cd) January 1, 1981			
	Oil (1,000 bbl)	Gas (10^9 cu ft)	Producing wells July 1, 80	1980§ (1,000 b/d)	% change from 1979		Crude	Catalytic Cracking	Thermal Cracking	Catalytic Reforming
ASIA-PACIFIC										
Australia	2,360,000	30,000	403	379.0	−14.1	12	743,100	160,900	...	160,580
Bangladesh	...	8,000	...	...	...	1	31,200	...	...	1,720
Brunei	1,710,000	7,300	578	230.0	−10.2	...	...	...	...	...
Burma	30,000	180	445	30.0	...	2	26,300	...	1,700	...
Rep. of China (Taiwan)	(c)9,000	600	82	(c)5.0	...	2	515,410	9,040	...	49,760
Guam	...	...	...	...	...	1	43,900	...	...	...
India	2,580,000	12,000	1,600	182.0	−25.7	9	556,750	55,000	55,430	15,060
Indonesia	9,500,000	23,500	3,700	1,576.0	−1.2	9	445,200	12,500	32,600	27,400
Japan	52,000	500	388	10.0	+25.0	45	5,454,000	341,870	40,000	541,780
Korea, South	...	...	...	...	...	6	606,745	...	...	25,640
Malaysia	3,000,000	15,000	230	288.0	+11.2	3	177,000	...	...	9,400
New Zealand	(c)173,000	6,100	16	(c)7.0	−22.2	1	74,000	...	...	24,000
Okinawa	...	...	...	...	...	3	208,000	...	...	12,500
Pakistan	196,500	15,100	19	10.0	...	3	122,036	...	...	4,848
Philippines	20,000	10	4	15.0	−42.3	3	246,300	24,900	...	38,300
Singapore	...	...	...	...	...	5	1,068,750	...	48,000	39,000
Sri Lanka	...	...	...	...	...	1	50,000	...	12,500	3,750
Thailand	...	8,000	...	...	...	3	186,000	7,000	17,000	25,500
Total Asia-Pacific	**19,630,500**	**126,290**	**7,465**	**2,732.0**	**−5.2**	**109**	**10,554,691**	**611,210**	**207,230**	**979,238**
WESTERN EUROPE										
Austria	130,000	365	1,120	29.0	−17.1	1	280,000	18,900	...	22,600
Belgium	...	...	...	...	...	8	1,055,900	85,000	...	132,200
Cyprus	...	...	...	...	...	1	16,000	...	...	2,800
Denmark	475,000	4,000	11	6.0	−25.0	3	215,000	...	72,150	37,900
Finland	...	...	...	...	...	2	336,000	9,500	12,000	54,800
France	40,000	6,000	296	26.0	+30.0	22	3,341,525	203,600	66,600	432,650
Germany, West	450,000	6,000	2,957	90.0	−4.3	31	3,021,247	182,400	382,454	399,718
Greece	150,000	4,000	...	...	...	4	428,000	17,500	11,400	29,850
Ireland	...	950	...	...	...	1	56,000	...	...	14,500
Italy-Sicily	640,000	3,500	116	39.0	+30.0	32	4,091,940	284,700	110,230	409,300
Netherlands	285,000	62,000	480	25.0	...	8	1,827,000	75,000	113,350	212,100
Norway	5,500,000	42,700	100	528.0	+31.0	4	252,700	...	69,000	29,800
Portugal	...	...	...	...	...	2	341,000	...	11,000	51,500
Spain	350,000	3,500	31	30.0	+100.0	10	1,463,800	...	13,000	191,600
Sweden	...	...	...	...	...	6	450,900	...	33,000	58,000
Switzerland	...	...	...	...	...	2	102,300	...	24,000	22,200
United Kingdom	14,800,000	24,800	290	1,619.0	+3.3	19	2,629,480	194,300	125,000	433,660
Yugoslavia	265,000	1,500	NA	80.0	+14.3	7	297,007	1,960	6,100	45,156
Total Western Europe	**23,085,000**	**159,315**	**5,401**	**2,473.0**	**+8.9**	**163**	**20,205,799**	**1,072,860**	**1,049,284**	**2,580,334**
MIDDLE EAST										
Abu Dhabi	29,000,000	20,000	341	1,350.0	−7.8	1	13,500	...	...	2,520
Bahrain	225,000	9,000	242	48.0	−5.9	1	250,000	34,200	19,000	17,100
Divided (Neutral) Zone	6,060,000	4,800	412	540.0	−4.8	...	...	...	...	...
Dubai	1,400,000	775	79	349.0	−1.4	...	...	...	...	...
Iran	57,500,000	485,000	547	1,467.0	−52.7	6	1,120,500	36,000	80,800	90,445
Iraq	30,000,000	27,450	250	2,638.0	−23.2	7	168,500	...	...	5,000
Israel	1,000	100	9	1.0	−96.8	2	190,000	15,000	44,000	24,300
Jordan	...	...	...	...	...	1	36,236	4,410	...	870
Kuwait	64,900,000	30,800	590	1,382.0	−37.6	5	645,000	...	...	21,600
Lebanon	...	...	...	...	...	2	52,000	7,250	...	7,292
Oman	2,340,000	2,500	269	283.0	−4.1	...	...	...	...	...
Qatar	3,585,000	60,000	124	472.0	−6.3	1	12,838	...	...	2,000
Saudi Arabia	165,000,000	110,000	733	9,630.0	+4.1	3	487,332	...	2,530	45,386
Sharjah	10,000	...	4	10.0	−23.1	...	...	...	...	...
South Yemen (Aden)	...	...	...	...	...	1	175,000	...	...	14,000
Syria	1,940,000	1,500	179	165.0	+1.2	2	223,040	...	37,779	16,975
Turkey	110,000	490	414	44.0	−21.4	4	355,700	41,260	...	29,875
Total Middle East	**362,071,000**	**752,415**	**4,193**	**18,379.0**	**−14.5**	**36**	**3,729,646**	**138,120**	**184,109**	**277,363**

EDITOR'S NOTE: All reserves figures except those for the U.S.S.R. (and gas for Canada) are proved reserves recoverable with present technology and prices. U.S.S.R. figures are "explored reserves," which include proved, probable, and some possible. Canadian gas figure, under new criteria adopted by Canadian Petroleum Association, includes proved and some probable. (c)Condensate. *Includes Gulf of Suez fields returned by Israel in late 1979. †Estimates based on capacity as of Jan. 1, 1980, plus known 1980 expansions. ††Includes Albania, Bulgaria, Cuba, Czechoslovakia, East Germany, Hungary, Mongolia, N. Korea, Poland, Rumania, and Viet Nam. §Totals may not add due to rounding.

COUNTRY	ESTIMATED PROVED RESERVES 1-1-1981		OIL PRODUCTION			No. of ref.	REFINING Capacity (b/cd) January 1, 1981			
	Oil (1,000 bbl)	Gas (10⁹ cu ft)	Producing wells July 1, 80	1980§ (1,000 b/d)	% change from 1979		Crude	Catalytic Cracking	Thermal Cracking	Catalytic Reforming
AFRICA										
Algeria	8,200,000	131,500	1,000	1,016.0	−13.5	3	122,400	...	...	23,600
Angola-Cabinda	1,200,000	1,050	188	150.0	+2.0	1	31,100	...	...	1.900
Cameroon	200,000	...	49	58.0	+70.6	...	...	...	...	...
Congo Republic	660,000	2,000	119	56.0	−1.8	...	...	...	...	...
Egypt	*2,900,000	*2,970	*484	*596.0	+13.3	6	292,000	...	...	7,000
Ethiopia	...	...	...	...	...	1	14,430	...	...	1,890
Gabon	450,000	500	242	180.0	−11.8	1	20,000	...	7,200	1,400
Ghana	6,300	...	3	2.0	−50.0	1	25,550	...	...	4,750
Ivory Coast	50,000	...	(On stream late 1980 3,000 b/d.)			2	50,400	...	...	4,600
Kenya	...	...	...	...	...	1	95,000	...	...	9,000
Liberia	...	...	...	...	...	1	15,000	...	...	2,400
Libya	23,000,000	23,800	886	1,785.0	−13.6	6	142,000	...	...	15,500
Madagascar	...	...	...	...	...	1	11,440	...	...	1,610
Morocco	75	...	NA	1.0	...	2	72,000	5,600	...	9,200
Mozambique	...	...	...	...	...	1	16,000	...	...	...
Nigeria	16,700,000	41,000	1,451	2,057.0	−10.7	2	160,000	26,000	...	22,000
Senegal	...	...	...	...	...	1	20,138	...	...	2,114
Sierra Leone	...	...	...	...	...	1	10,000	...	...	...
South Africa	...	...	...	...	...	4	468,500	85,000	63,500	67,500
Sudan	...	...	...	...	...	1	24,000	...	...	2,100
Tanzania	...	...	...	...	...	1	12,200	...	...	3,500
Togo	...	...	...	...	...	1	20,000	...	...	3,030
Tunisia	1,652,000	5,600	87	110.0	+10.0	1	34,000	...	...	3,300
Zaire	130,000	50	13	20.0	−4.8	1	17,000	...	...	3,000
Zambia	...	...	...	...	...	1	24,500	...	...	5,600
Total Africa	**55,148,375**	**208,470**	**4,522**	**6,032.0**	**−9.1**	**41**	**1,697,658**	**116,600**	**70,700**	**194,994**
WESTERN HEMISPHERE										
Argentina	2,457,000	22,000	6,822	487.0	+4.3	12	678,550	95,900	53,230	36,900
Bahamas	...	...	...	...	...	1	500,000	...	...	...
Barbados	837	1	34	1.0	...	1	3,000	...	...	...
Bolivia	112,000	4,200	292	30.0	...	4	74,000	...	...	13,800
Brazil	1,300,000	1,500	1,615	182.0	+13.0	13	1,401,600	216,400	1,765	21,600
Chile	400,000	2,500	380	29.0	+26.1	2	139,230	34,650	8,820	9,954
Colombia	800,000	6,000	2,123	125.0	+0.8	6	198,500	77,000	41,000	6,000
Costa Rica	...	...	...	...	...	1	15,000	...	...	...
Dominican Republic	...	...	...	...	...	2	48,461	...	...	9,500
Ecuador	1,100,000	4,000	477	222.0	−1.3	2	87,100	11,400	13,800	...
El Salvador	...	...	...	...	...	1	16,300	...	...	2,800
Guatemala	20,000	10	3	5.0	+150.0	1	16,000	...	...	3,000
Honduras	...	...	...	...	...	1	14,000	...	...	1,800
Jamaica	...	...	...	...	...	1	22,000	...	...	3,500
Martinique	...	...	...	...	...	1	14,000	...	...	3,300
Mexico	44,000,000	64,500	3,384	1,936.0	+32.5	9	1,393,500	297,000	78,000	81,800
Netherlands Antilles	...	...	...	...	...	2	782,000	42,000	283,000	15,000
Nicaragua	...	...	...	...	...	1	14,400	...	...	2,850
Panama	...	...	...	...	...	1	100,000	...	...	7,500
Paraguay	...	...	...	...	...	1	7,500	...	...	...
Peru	650,000	1,100	2,782	191.0	−2.1	4	168,900	23,390	...	1,760
Puerto Rico	...	...	...	...	...	3	284,000	52,000	20,000	76,000
Trinidad & Tobago	700,000	12,000	3,349	211.0	−1.9	2	456,000	25,000	...	27,000
Uruguay	...	...	...	...	...	1	40,000	4,000	5,000	2,500
Venezuela	17,950,000	42,000	5,042	2,167.0	−8.0	9	1,348,840	72,200	74,520	19,100
Virgin Islands	...	...	...	...	...	1	728,000	...	...	70,000
United States	26,400,000	191,000	526,855	8,569.0	+0.3	297	†18,400,000	†4,775,000	†338,000	†3,690,000
Canada	6,400,000	87,300	20,721	1,412.0	−5.6	33	†2,166,000	†457,580	†31,140	†386,780
Total Western Hemisphere	**102,289,837**	**438,111**	**573,879**	**15,567.0**	**+1.8**	**415**	**29,116,881**	**6,183,520**	**948,275**	**4,492,444**
Total Non-Communist	**562,224,712**	**1,684,601**	**595,460**	**45,181.0**	**−7.0**	**761**	**65,304,675**	**8,122,310**	**2,459,598**	**8,524,373**
COMMUNIST AREAS										
China	20,500,000	24,500	NA	2,124.5	−0.3	20	1,810,000	NA	NA	NA
U.S.S.R.	63,000,000	920,000	80,000	12,108.5	+3.0	32	11,400,000	NA	NA	NA
Other††	2,800,000	9,400	NA	345.4	−4.5	38	2,826,500	NA	NA	NA
Total Communist	**86,300,000**	**953,900**	**NA**	**14,578.4**	**+2.3**	**90**	**16,036,500**	**NA**	**NA**	**NA**
TOTAL WORLD 1980	**648,524,712**	**2,638,501**	**595,460**	**59,760.4**	**−4.9**	**851**	**81,340,850**	...	...	...

Worldwide Production

● Offshore (e) Estimated (c) Condensate (NA) Not available

	WORLDWIDE PRODUCTION	Name of field, discovery date	Depth, feet	Flow	No. of wells Artificial lift	Shut-in*	B/d average, first 6 mo. 1980	Cumulative, bbl, to July 1, 1980	°API gravity
ABU DHABI	AMERADA GROUP [(e)]	● Arzanah, 1973	8,000	8	...	...	22,000	7,250,000	43.4-44.4
	CFP GROUP[(e)]	● Abu Al Bukhoosh, 1969	7,900	20	...	...	75,000	155,000,000	32.1
		● Mubarras, 1971	11,000	20	...	11	22,000	50,800,000	37.8
		● El Bunduq, 1965	8,500	(Shut	in since 1979)			3,300,000	40.0
	ADNOC	Asab, 1965	7,500	...	...	...	300,000		38.0-40.0
		Bab, 1953	8,500	...	...	...	54,000		40.0-52.0
		Bu-Hasa, 1962	7,500	[(e)]293	...	[(e)]38	365,000	3,592,000,000	39.0-41.1
		Sahil, 1967	7,500	...	...	...	20,000		40.0
		● Umm Shaif, 1958	8,500	...	...	...	250,000		37.0-38.0
		● Upper Zakum, 1964	9,150	...	...	...	48,000	2,021,000,000	33.0-40.0
		● Lower Zakum, 1964	9,100	...	...	...	200,000		33.0-40.0
		Total Abu Dhabi		**341**	**...**	**49**	**1,356,000**	**5,829,350,000**	
ALGERIA	SONATRACH	Zarzaitine, 1957	4,700						42.2
		Edjeleh, 1956	1,500- 2,800						37.2
		Tiguentourine, 1966	2,160- 4,265						44.4
		El Adeb Lareche, 1958	4,100						43.3
		Assakaifaf N. & S., 1958	2,800						42.7
		Tan Emellel N. & S., 1960	2,800- 4,500						42.5
		Edeyen, 1964	5,580						41.5
		Hassi Mazoula S., 1963	4,430						40.2
		Hassi Mazoula B., 1965	4,920						42.0
		Acheb W. & Kreb, 1963 & 1960	7,360						45.6
		Tin Fouye N. + F6, 1962	4,265						39.6
		El Borma, 1967	8,200						42.9
		Keskassa, 1968	8,860						42.9
		Mereksen, 1974	9,420						45.8
		Gara, 1962	9,420						42.9
		Hassi Messaoud N., 1956	10,500						45.9
		Hassi Messaoud S., 1956	10,500						46.1
		Gassi-Touil & Gassi-Touil E., 1961	6,890						50.6-50.8
		Hassi Chergui	8,200						50.6
		Nezla N., 1965	8,530						51.5
		Rhourde El Baguel, 1962	9,850						40.2
		Mendar E., 1972	11,155						40.3
		El Gassi-El Agreb, 1959	10,170						47.9
		Rhourde Nouss & E., 1972	8,530	770	220	280	1,000,000	5,619,000,000	39.7
		Tin Foye Tabankort, 1966	4,600- 6,560						41.1-41.3
		Djoua W., 1967	5,580- 6,240						41.1
		Amassak, 1970	6,565						41.1
		Tamendjelt, 1970	5,585- 6,890						41.1
		Timedratine, 1964	8,155						42.7
		Ohanet N. & S., 1960	7,875						43.8
		Askarene, 1962	8,200						41.7
		Guelta, 1962	8,960						41.7
		Stah, 1971	9,515						45.8
		Ras Toumb, 1976	9,190						35.7
		Haoud Berkaoui-Ben Kahla, 1965	11,000						43.6
		Guellala-Guellala N.E., 1969	11,320						42.2-42.3
		N'Goussa, 1974	11,715						42.2
		Kef El Argoub, 1973	12,570						42.2
		Oued Noumer, 1969	8,860						48.3
		Ait-Kheir, 1971	9,025						48.3
		Djorf, 1974	9,025						47.9
		Djebel Onk, 1960	3,940						37.0
		Alrar FJT	...						...
		Hassi R'Mel[(c)]	...						...
		Gassi Touil[(c)]	...						...
		Other	...						...
		Total Algeria		**770**	**220**	**280**	**1,000,000**	**5,619,000,000**	
ANGOLA	PETRANGOL S.A.R.L.	Bento, 1972	7,500	1	...	2	592	3,853,560	26.0
		Ganda, 1975	5,010	1	...	...	962	1,392,277	36.1
		N'Z Kitona S & D, 1973	5,200- 5,670	4	...	2	6,091	3,779,364	30.4
		N'Z Pangala, 1973	4,997- 5,095	6	...	2	11,513	25,322,861	36.1
		N'Zombo, SW I, SW S, & SE S, 1973	5,245- 6,270	4	...	2	5,206	16,717,905	30.2-31.0
		Quenguela, N., A+B, C, S, MN, 1968	4,900- 6,200	2	15	60	2,021	29,339,855	31.1
		Quinfuquena I & S, 1975	6,800- 7,050	6	...	1	7,331	9,919,666	31.4-32.0
		Quinguila, 1972	4,100	1	9	5	9,395	12,445,704	36.2
		Other		17	9	32	2,645	40,326,217	

WORLDWIDE PRODUCTION	Name of field, discovery date	Depth, feet	No. of wells Flow	Artificial lift	Shut-in*	B/d average, first 6 mo. 1980	Cumulative, bbl, to July 1, 1980	°API gravity
GULF CABINDA	• Erva, 1969	10,650	1	...	...	547	2,829,534	30.2
	• Kambala, 1971	11,100	1	...	...	1,606	2,143,874	32.8
	• Kungulo, 1975	3,900	6	2	1	7,817	[illegible],313,174	32.2
	• Limba, 1969	2,900- 8,750	6	2	2	19,376	4[illegible],800,694	31.6
	• Livuite, 1979	8,200	1	...	...	633	145,261	31.7
	• Malongo, N, 1966	1,500- 8,500	8	41	8	27,591	163,163,880	29.6
	• Malongo, S, 1966	1,300- 1,600	3	22	5	9,948	48,793,627	25.1
	• Malongo, W, 1969	1,800- 6,900	8	11	22	27,922	176,507,516	22.5
TEXACO	• Cuntala, 1978	7,000- 7,500	1	...	...	1,519	309,086	34.0
	Total Angola		**77**	**111**	**144**	**142,715**	**587,104,055**	
ARGENTINA*	Chubut, 1907	1,968- 9,186	6	1,557	182	94,541	749,943,566	21.14-26.78
	Jujuy, 1969	2,461-16,732	7	...	...	2,937	56,728,963	46.49-47.16
	La Pampa, 1968	3,609- 4,921	...	171	6	14,244	49,348,862	31.14-31.33
	Mendoza, 1932	2,178-16,778	14	842	74	117,431	779,817,450	23.65-32.08
	Neuquen, 1918	1,312-12,498	161	494	127	64,936	299,983,661	24.00-41.06
	Rio Negro, 1960	2,953- 7,546	43	949	61	56,311	311,380,720	22.47-41.06
	Salta, 1928	6,551-15,092	39	3	11	4,688	91,351,595	38.98-59.72
	Santa Cruz, 1946	1,468-17,060	157	2,220	207	102,124	701,664,262	21.14-30.40
	Tierra del Fuego, 1959	5,249- 7,824	70	89	45	23,935	91,862,387	43.41-46.04
	Other					6,526	256,617,388	
*By provinces	**Total Argentina**		**497**	**6,325**	**713**	**487,673**	**3,388,698,854**	
AUSTRALIA ESSO-BHP	• Barracouta, 1968	4,550	2		...	1,966	17,114,167	62.8
	• Cobia, 1972	7,700	1	...	...	1,502	434,093	44.6
	• Halibut, 1967	7,700	17	...	2	65,784	464,312,286	43.6
	• Kingfish, 1967	7,500	30		12	147,471	708,739,956	46.9
	• Mackerel, 1969	7,700	15	...	...	101,522	63,554,631	45.6
	• Tuna, 1968	6,500	6	...	1	4,963	1,945,773	42.0
INTERNATIONAL OIL	Alton, 1964	6,000		4	...	61	1,770,832	51.0
	Cabawin, 1961	5,800	1	...	...	23	21,266	52.0
	Moonie, 1961	5,800		22	2	992	19,745,339	44.5
WAPET GROUP	Barrow Island, 1964	2,200- 6,700	11	294	58	28,870	167,071,146	36.0
	Total Australia		**83**	**320**	**75**	**353,154**	**1,444,709,489**	
AUSTRIA	Gaiselberg, 1938	7,400	...	31	14	940	29,884,000	20.0-36.0
	Hochleiten, 1974	3,100- 5,000	4	1	19	305	301,477	21.3
	Kemating, 1979	6,100	...	4	2	1,160	345,000	35.0
	Matzen, 1949	4,200- 7,200	14	684	214	16,453	345,980,753	25.7
	Muehlberg, 1942	3,900- 5,500	...	48	8	548	37,034,787	35.0
	Piperbach, 1968	3,500	2	7	...	303	3,061,489	39.0
	Pirawarth, 1957	1,600- 6,500	1	66	4	1,392	9,270,521	28.4
	St. Ulrich, 1938	1,600- 4,300	1	130	62	1,030	39,205,802	33.0
	Sattledt, 1971	5,700	...	12	1	989	3,336,000	36.0
	Schoenkirchen-Prottes Tief, 1962	7,800-10,100	1	2	17	3,390	54,525,850	31.1
	Voitsdorf, 1963	7,000	3	18	4	1,034	19,573,000	36.0
	Other		3	88	22	1,407	54,001,195	
	Total Austria		**29**	**1,091**	**367**	**28,951**	**596,519,874**	
BAHRAIN BANOCO	Awali, 1932	1,850- 4,600	117	125	33	49,280	664,553,000	33
BARBADOS MOBIL	Woodbourne, 1966	6,000	5	29	7	917	1,222,016	32.0
	Other		...	...	2	1	42,439	32.0
	Total Barbados		**5**	**29**	**9**	**918**	**1,264,455**	
BOLIVIA YPFB	Caigua, 1973	3,280	7	...	...	300	6,090,000	45.0
	Camiri, 1927	3,936	12	45	...	1,080	46,712,000	55.0
	Cambeiti, 1976	5,400	3	3	...	279	601,000	48.0
	Caranda, 1960	3,940	10	18	...	1,149	51,877,000	60.0
	Colpa, 1961	9,184	28	...	...	1,267	16,505,000	65.0
	Monteagudo, 1966	4,592	15	15	...	3,137	25,918,000	41.0
	La Pena, 1965	8,856	22	...	...	2,038	17,744,000	43.0
	Palmar, 1964	10,758	2	...	...	693	540,000	65.0
	Rio Grande, 1961	9,512	32	...	...	10,489	45,346,000	62.0
	Tatarenda,1962	2,296	3	9	...	279	6,821,000	51.0
	Espino, 1979	14,655	1	...	...	23	11,000	56.2
	Other		8	38	...	490	14,976,000	...
OCCIDENTAL(c)	Tita, 1976	6,450	12	...	...	2,125	2,410,000	70.5
TESORO	La Vertiente, 1977	10,827	1	...	...	880	260,000	...
	Total Bolivia		**156**	**128**	**...**	**24,529**	**235,811,000**	
BRAZIL PETROBRAS	Agua Grande, 1951	820- 4,265	29	70	59	10,296	253,620,794	42.0
	Aracas, 1965	3,280- 8,856	4	80	12	10,774	83,902,385	41.0
	Buracica, 1959	1,476- 1,840	1	139	8	12,146	112,497,073	35.0
	Candeias, 1941	3,280- 7,415	1	46	65	3,786	69,419,409	31.0
	• Caioba, 1969	6,232- 6,890	9	1	3	8,347	18,679,391	36.0
	Carmopolis, 1963	2,460	1	347	41	20,178	98,316,008	24.0
	Cassarongongo, 1959	1,475- 4,755	...	17	7	1,258	11,592,812	32.0

WORLDWIDE PRODUCTION		Name of field, discovery date	Depth, feet	No. of wells			B/d average, first 6 mo. 1980	Cumulative, bbl, to July 1, 1980	°API gravity
				Flow	Artificial lift	Shut-in*			
		• D. João Mar, 1947	920	8	267	129	8,177	64,624,242	38.0
		• Dourado, 1970	3,620- 3,635	2	...	2	327	1,802,550	36.0
		Faz. Boa Esperanca, 1966	7,215- 8,036	2	3	4	2,447	11,730,244	40.0
		Fazenda Ikbe, 1964	2,130- 5,575	2	14	7	1,296	10,657,551	42.0
		Furadc, 1969	4,550- 5,500	9	25	13	2,378	7,177,102	35.0
		• Guaricema, 1968	3,335- 4,430	12	4	8	6,648	21,955,365	41.0
		Malombe, 1966	3,280	...	14	1	1,321	4,859,053	31.0
		Miranga, 1965	3,280- 3,936	19	113	38	14,504	146,425,871	41.0
		Remanso, 1971	4,445- 4,560	10	25	34	2,239	12,697,024	35.0
		Riachuelo, 1961	1,475	...	102	20	2,447	9,136,469	28.0
		Siririzinho, 1967	1,640	...	89	26	3,623	21,308,327	30.0
		Taquipe, 1959	3,115- 3,935	2	49	13	5,579	71,554,375	40.0
		• Ubarana, 1973	7,216- 8,365	19	...	2	8,762	7,592,694	40.0
		• Aguiha, 1975	5,412	4	...	3	5,397	1,965,500	31.0
		• Enchova, 1976	6,973- 7,885	4	...	...	12,781	10,672,671	27.0
		• Cacao, 1978	9,184	3	...	...	2,862	2,745,523	37.0
		• Garoupa, 1974	11,382	3	...	...	6,120	1,438,282	30.0
		• Namorado, 1975	10,083	3	...	1	11,510	3,394,825	28.0
		• Camurim, 1971	6,232	16	1	4	3,019	5,036,872	28.0
		• Curima, 1978	6,888	3	...	...	1,088	197,940	32.0
		• Faz. Cedro, 1972	5,248	2	9	5	1,491	7,078,560	29.0
		Other		20	170	123	12,220	54,891,261	
		Total Brazil		**188**	**1,595**	**628**	**183,021**	**1,126,970,173**	
BRUNEI	BRUNEI SHELL	• Ampa, SW, 1963	7,068- 8,155	103	...	75	61,917	431,510,945	41.0
		• Champion, 1970	4,300	97	...	53	81,431	152,861,409	23.0
		• Fairley, 1969	10,740	28	...	11	19,733	71,514,930	40.0
		• Fairley-Baram, 1963	9,500	5	...	...	3,055	9,918,449	40.0
		• Magpie, 1975		9	...	...	21,177	13,449,687	31.0
		Seria, 1929		336	...	175	35,659	895,251,400	34.0
		Other		...	...	2	7	638,066	
		Total Brunei		**578**	...	**316**	**222,979**	**1,575,144,886**	
BURMA(e)	MYANMA	Chauk-Lanywa, 1902	1,500- 4,000	170	275		30,000	422,480,000	36.0
		Mann, 1970	1,600- 7,000						37.5
		Myanaung, 1964	2,000- 4,000						40.5
		Prome, 1965	850- 5,000						36.0
		Yenangyaung, 1902	100- 6,700						36.0
		Total Burma		**170**	**275**	...	**30,000**	**422,480,000**	
CAMEROON	ELF-PECTEN	• Betika, 1972	5,300	10	...	2	6,460	3,458,000	42.3
		• Ekoundou S., 1975	6,200	12	...	1	11,570	5,597,000	28.6
		• Kole, 1974	5,500	11	...	3	11,340	10,745,000	31.3
		• Kombo Centre, 1976	5,900	16	...	...	26,400	7,526,000	37.0
		Total Cameroon		**49**		**6**	**55,770**	**27,326,000**	

		Name of field, discovery date	Depth, feet	No. of wells capable of prod.	B/d average, first 6 mo. 1980	Cumulative, bbl, to July 1, 1980	°API gravity
CANADA	ALBERTA	Acheson, 1950	3,390	116	13,000	87,000,000	38.0
		Bantry, 1940	2,574- 3,300	154	4,000	30,000,000	...
		Bellshill Lake, 1955	2,950	184	6,000	32,000,000	...
		Bonnie Glen, 1952	3,950- 6,779	158	74,000	344,000,000	34.0-44.0
		Carson Creek, N., 1958	8,787- 8,935	70	21,000	94,000,000	44.0
		Cessford, 1950	2,800- 3,028	190	4,000	22,000,000	...
		Clive, 1951	6,074- 6,208	125	8,000	38,000,000	...
		Countess, 1951	2,858- 4,272	104	11,000	28,000,000	...
		Fenn-Big Valley, 1950	3,900- 5,400	320	48,000	210,000,000	32.0
		Gilby, 1962	4,201- 7,000	129	4,000	41,000,000	...
		Golden Spike, 1949	3,570- 5,861	75	8,000	219,000,000	36.0
		Harmattan, E.	8,040- 8,558	85	7,000	58,000,000	...
		Harmattan-Elkton, 1955	8,796-10,757	68	6,000	50,000,000	...
		Innisfail, 1956	6,730- 8,440	77	11,000	62,000,000	...
		Joarcam, 1949	3,179	251	5,000	87,000,000	...
		Joffre, 1953	4,983- 6,779	140	4,000	73,000,000	...
		Judy Creek, 1951	8,307- 8,701	254	53,000	321,000,000	43.0
		Kaybob, 1957	4,870- 9,577	86	13,000	79,000,000	...
		Kaybob, S., 1958	5,600-10,042	101	11,000	61,000,000	...
		Leduc, 1947	3,062- 5,380	731	10,000	357,000,000	40.0
		Lloydminster, 1933	1,690- 1,945	586	6,000	35,000,000	...
		Medicine River, 1954	5,435- 7,600	224	8,000	50,000,000	...
		Mitsue, 1964	5,908	241	41,000	188,000,000	43.0
		Nipisi, 1965	5,648- 5,726	230	33,000	171,000,000	41.0
		Pembina, 1953	3,000- 6,133	3,335	80,000	973,000,000	32.0-37.0
		Provost, 1946	2,760- 2,898	649	8,000	43,000,000	...
		Rainbow, 1965	4,994- 6,160	162	71,000	342,000,000	38.0-42.0
		Rainbow, S., 1965	6,102- 6,400	36	10,000	53,000,000	...
		Red Earth, 1956	4,184- 4,878	123	5,000	29,000,000	...
		Redwater, 1948	2,012- 3,200	804	90,000	704,000,000	35.0
		Simonette, 1958	10,500	18	3,000	33,000,000	...
		Snipe Lake, 1962	8,500	96	5,000	46,000,000	...

	Name of field, discovery date	Depth, feet	No. of wells capable of prod.	B/d average, first 6 mo. 1980	Cumulative, bbl, to July 1, 1980	°API gravity
	Sturgeon Lake, S., 1953	4,912- 8,471	143	12,000	100,000,000	37.0
	Sundre, 1954	8,700- 9,000	55	3,000	31,000,000	...
	Swan Hills, 1957	8,100	712	72,000	531,000,000	40.0
	Swan Hills, S., 1959	8,400	189	56,000	262,000,000	37.0
	Turner Valley, 1913	3,100- 9,150	161	3,000	131,000,000	39.0
	Utikuma Lake, 1963	5,624	83	8,000	29,000,000	...
	Virginia Hills, 1957	9,210	147	12,000	106,000,000	34.0
	Wainwright, 1925	1,903- 2,200	444	7,000	50,000,000	...
	Westerose, 1952	6,818	17	16,000	81,000,000	...
	Willisden Green, 1956	5,15[illegible]	602	13,000	84,000,000	...
	Wizard Lake, 1951	4,044- 5,973	39	5,000	228,000,000	33.0-37.0
	Zama	3,702	193	7,000	64,000,000	...
	Other	...	5,439	308,359	903,635,584	...
BRITISH COLUMBIA	Boundary Lake, 1957	3,418- 4,575	346	15,000	135,000,000	40.0
	Other		2,296	20,000	189,000,000	...
MANITOBA	All fields	...	818	10,000	128,000,000	...
SASKATCHEWAN	Steelman, 1950	4,600	626	13,000	226,000,000	27.0
	Weyburn, 1955	4,600	572	17,000	244,000,000	28.0
	Other	...	8,243	131,000	1,210,000,000	...
ONTARIO	All fields	...	...	2,000	56,000,000	...
NEW BRUNSWICK	All fields	...	...	...	793,000	...
NORTHWEST TERRITORIES	All fields	...	55	3,000	23,000,000	...
	Total Canada		**31,102**	**1,414,359**	**9,772,428,584**	

CHILE

WORLDWIDE PRODUCTION	Name of field, discovery date	Depth, feet	No. of wells Flow	No. of wells Artificial lift	No. of wells Shut-in*	B/d average, first 6 mo. 1980	Cumulative, bbl, to July 1, 1980	°API gravity
ENAP-MAINLAND	Canadon, 1962	6,090	134	34	...	7,893	108,818,456	38.4
	Daniel, 1960	5,806						25.4
	Daniel Este, 1961	5,523						25.0
	Dungenes, 1962	5,251						28.6
	Posesion, 1960	5,622						63.6
TIERRA DEL FUEGO	Calafate, 1955	6,045	136	45	...	5,544	136,539,537	49.3
	Catalina Sur, 1961	5,779						44.0
	Cullen, 1954	5,730						41.8
	Tres Lagos, 1957	5,724						40.1
STRAIT OF MAGELLAN	• Ostion OS-1, 1977	6,890	28	3	...	17,429	5,291,607	33.0
	• Posesion PO-2, 1977	5,787						35.5
	• Spiteful SP-1, 1978	5,709						34.5
	• Spiteful SP-2, 1978	6,064						34.5
	Total Chile		**298**	**82**	...	**30,866**	**250,649,600**	

CHINA (Republic of)

	Name of field, discovery date	Depth, feet	Flow	Artificial lift	Shut-in*	B/d average, first 6 mo. 1980	Cumulative, bbl, to July 1, 1980	°API gravity
CHINESE PETROLEUM CORP.	Tiechengshan, (c) 1959		30	...	4	2,540	10,896,640	51
	Chingtsohu, (c) 1967		9	...	2	348		50
	Yunghoshan, (c) 1971		5	...	1	551	4,202,074	45
	Others		38	...	8	440		50
	Total Republic of China		**82**		**15**	**3,879**	**15,098,714**	

(c) Condensate

COLOMBIA ECOPETR

	Name of field, discovery date	Depth, feet	Flow	Artificial lift	Shut-in*	B/d average, first 6 mo. 1980	Cumulative, bbl, to July 1, 1980	°API gravity
	Bonanza, 1964	4,000	...	...	...	1,200	10,342,000	30.0
	Boquete, 1961	8,000	...	...	...	1,600	15,194,000	43.0
	Burdine, 1974	11,000	...	...	...	1,300	2,703,000	26.3
	Cantagallo, 1941	6,800	...	...	...	800	16,248,000	19.7
	Casabe, 1941	3,800	...	...	...	4,900	216,377,000	20.7
	Castilla, 1976	7,400	...	...	...	1,100	1,017,000	13.2
	Cocorna, 1963	2,000	...	...	...	1,000	5,158,088	12.6
	Dina, 1962	2,900	...	...	...	7,500	20,303,000	22.5
	Gaian, 1945	3,200	...	...	...	1,300	15,568,000	19.0
	Infantas, 1918	3,200	...	...	...	3,300	217,080,000	25.8
	La Cira, 1925	3,250	123	2,000	100	11,800	436,374,000	24.0
	Lisama, 1957	9,500	...	...	...	6,500	14,637,000	31.0
	Llanito, 1960	7,300	...	...	...	1,200	12,095,000	21.0
	Loro, 1964	9,600	...	...	...	700	9,493,000	30.5
	Orito, 1963	6,600	...	...	...	20,000	158,677,000	39.7
	Ortega, 1953	4,300	...	...	...	600	10,282,380	27.0
	Palagua, 1954	4,500	...	...	...	5,100	68,154,470	15.2
	Payoa, 1962	8,000	...	...	...	4,000	67,903,000	36.7
	Provincia, 1962	8,000	...	...	...	10,700	125,373,000	33.0
	Pto. Colon, 1965	9,600	...	...	...	1,000	7,807,000	30.5
	Rio Zulia, 1961	6,500	...	...	...	6,400	122,666,000	41.4
	Salina, 1971	2,500	...	...	...	2,200	2,298,000	24.0
	Tello, 1972	4,200	...	...	...	5,000	8,182,000	20.2
	Tibu, 1940	4,200	...	...	...	7,500	267,601,000	37.2
	Velasquez, 1945	5,300	...	...	...	6,000	154,607,366	[illegible]2.4
	Yarigui, 1954	6,800	...	...	...	7,700	87,760,000	19.5
	Other	...	...	...	...	3,900	68,960,000	...
	Total Colombia		**123**	**2,000**	**100**	**124,300**	**2,142,860,304**	

WORLDWIDE PRODUCTION		Name of field, discovery date	Depth, feet	Flow	No. of wells		B/d average, first 6 mo. 1980	Cumulative, bbl, to July 1, 1980	°API gravity
					Artificial lift	Shut-in*			
CONGO	AGIP	Loango, 1972	3,000	5	31	1	27,000	24,476,000	27.0
	ELF CONGO(e)	Emeraude, 1969	1,000	...	80	32	27,000	90,204,300	23.3
		Pointe Indienne, 1957	5,000	3	...	16	200	6,408,150	36.9
		Total Congo		**8**	**111**	**49**	**54,200**	**121,088,450**	
DENMARK	D.U.C. GROUP	• Dan, 1971	6,000- 6,400	11	...	8	6,630	15,949,900	30.4
DIVIDED ZONE(e)	AOC	• Khafji, 1961	4,400- 7,300	91	...	30	396,000	1,908,000,000	28.2
		• Hout, 1969	5,300- 8,800	15		11	7,000	48,000,000	32.4
	KOC	S. Fuwaris, 1963	6,400		5	...	2,000	17,000,000	23.5
		S. Umm Gudair, 1961	8,800		16	...	49,000	218,000,000	23.5
	GETTY	Wafra, 1953	1,100- 7,000	4	281	10	104,000	1,086,000,000	18.9-23.5
		Total Divided Zone		**110**	**302**	**51**	**558,000**	**3,277,000,000**	
DUBAI	DUPETCO	• Fateh, 1966	7,600- 9,000	16	26	4	151,712	560,239,330	31.8
		• S.W. Fateh, 1970	7,500- 9,000	5	23	6	182,165	387,169,570	30.3
		• Falah, 1972	8,100	1	6	...	9,479	5,290,267	25.5
		• Rashid, 1973	9,400-11,500	2	...	1	1,589	889,741	38.0
		Total Dubai		**24**	**55**	**11**	**344,945**	**953,588,908**	
ECUADOR	COASTAL AREA	Ancon, 1921	4,000	...	140	515	1,900	103,347,900	35.6
		Other		...	175	...	400	4,586,400	
	TEXACO	Aguarico, 1968	9,850	7	...	3	8,855	20,869,405	22.0
		Atacapi, 1968	9,850	3	...	3	4,104	2,269,126	31.0
		Auca, 1970	10,300	4	11	6	15,451	21,821,425	28.0
		Lago Agrio, 1967	10,250	15	1	10	17,387	79,447,139	28.5
		Parahucu, 1968	9,850	2	...	2	2,500	1,569,021	30.0
		Sacha, 1969	10,000	53	11	25	55,661	179,582,570	28.0
		Shushufindi, 1959	9,700	8	35	9	92,559	236,500,198	30.0
	CITY EXPLORATION	Mariann, 1971	7,700	3	2	.	1,063	783,000	23.0
		Fanny,* 1972	7,700	5	1		1,474	1,152,000	23.0
		Fanny II, 1973	8,300	...	1	...	345	146,000	23.0
		Joan, 1974	7,500	...	...	2	...	5,000	18.0
		Total Ecuador		**100**	**377**	**575**	**201,699**	**652,079,184**	
EGYPT	AMOCO	Abu Gharadig, 1972	9,500	9	1	6	10,991	21,819,176	36.0
		• El Morgan, 1965							
		Kareem	5,500- 6,400	1	49	11	107,636	587,753,115	32.0
		Belayim	5,100- 5,700	0	6	0	6,983	25,784,225	27.0
		• GS-195, 1978	11,000	4	0	0	29,712	6,453,555	28.0
		• GS-382,1977	10,500	3	0	0	8,964	14,617,307	33.9
		• July, 1973							
		Nukhul	9,000	0	0	1	0	52,109	28.2
		Upper Rudeis	8,100	0	1	1	2,335	4,040,504	34.6
		Rudeis	8,600	5	5	0	95,140	114,529,000	33.7
		Cretaceous	9,000	0	1	0	286	1,336,046	31.0
		Nubian	10,000	3	3	4	41,334	97,907,130	31.5
		• Ramadan, 1974	11,300	10	3	1	100,738	160,304,717	31.7
		Razzak, 1972	7,700	7	4	2	10,082	38,369,716	36.0
		• SG-300, 1976	5,876	0	1	1	6,260	6,079,425	24.8
		• Shoab Ali, 1978	6,000	3	5	4	18,047	18,776,237	34.0
		Other		0	1	3	536	1,565,669	...
	ENI	Belayim, 1955	7,000- 8,500	3	86	48	33,000	311,301,000	22.0
		• Belayim Marine, 1961	8,500	5	17	7	64,000	268,870,000	30.5
	PHILLIPS GROUP	El Alamein, 1966	8,700	9	...	...	3,710	59,114,322	33.6
		Umbarka, 1976	10,700	4	...	...	1,358	1,751,532	43.9
		Yidma, 1971	9,000	5	...	1	3,530	15,608,864	44.0
	EGPC	Amer, 1965	3,500	4	9	13	2,270	8,011,000	21.5
		Asl, 1947	3,000	3	...	...	1,500	37,070,000	21.6
		Bakr, 1958	3,200	1	49	30	4,500	63,059,000	19.0
		El-Ayoun, 1968	3,300	...	9	3	893	5,027,000	24.0
		El-Yusr, 1968	3,400- 3,900	3	24	12	4,540	24,330,000	21.0
		Gharib, 1938	2,200- 4,500	...	93	100	7,130	234,712,000	25.5
		Sudr, 1946	2,600	2	12	...	1,400	41,729,000	21.6
		Other	...	6	15	29	1,799	13,769,000	...
		Total Egypt		**90**	**394**	**277**	**568,674**	**2,183,740,649**	
FRANCE(e)	ALSACE	(All fields shut in)		...	...	...	...	26,368,000	...
	AQUITAINE BASIN	Cazaux, 1959	8,200	...	...	...	4,300	53,764,000	34.2-37.3
		Lavergne, 1962	10,650	...	...	...	700	10,836,000	40.4
		Lugos, 1956	4,900	...	...	...	900	4,332,000	20.6
		Lacq Superieur, 1949	2,130	21	275	...	800	22,839,000	20.6
		Montastruc, 1973	6,800	...	...	...	1,600	4,090,000	32.8
		Parentis, 1954	7,550		...	...	6,600	175,596,000	33.0
		Pecorade, 1974	8,100	...	...	...	1,000	1,006,000	27.8
		Other	...	...	...	...	3,000	13,698,000	...
	PARIS BASIN	Coulommes, 1958	6,070	...	...	...	700	12,034,000	32.6
		Saint-Martin, 1959	4,525	...	...	...	700	7,380,000	32.8

* 65% of total in unit with CEPE

WORLDWIDE PRODUCTION		Name of field, discovery date	Depth, feet	Flow	No. of wells Artificial lift	Shut-in*	B/d average, first 6 mo. 1980	Cumulative, bbl, to July 1, 1980	°API gravity
		Saint-Firmin, 1960	2,000	...	...	...	800	7,691,000	27.8
		Other	...	...	...	...	4,100	28,831,000	...
		Total France		**21**	**275**	**...**	**25,200**	**368,465,000**	
GABON	**ELF-GABON**	• Anguille, 1962	8,200	...	...	...	12,130	83,824,582	31.2
		• Anguille NE, 1969	7,500	...	...	...	5,357	36,423,748	31.0
		• Anguille NNE, 1971	7,500	...	...	...	875	5,850,366	31.4
		• Batanga, 1960	6,000	...	...	...	216	7,146,935	43.0
		• Barbier, 1974	7,200	...	...	...	15,337	52,586,034	30.0
		• Breme, 1976	5,700	...	...	...	12,771	24,505,895	36.1
		• Clairette, 1957	9,000	...	...	...	480	28,156,636	29.5
		• Doree, 1974	7,200	110	70	40	614	1,874,181	31.4
		• Girelle, 1975	12,000	...	...	...	5,914	15,434,912	31.1
		• Gonelle, 1976	7,200	...	...	...	5,090	9,718,590	24.8
		• Grondin, 1973	7,500	...	...	...	28,051	137,180,637	27.4
		Lopez Nord, 1961	5,600	...	...	...	227	18,552,905	23.4
		• Mandaros, 1974	6,500	...	...	...	15,139	42,798,902	31.0
		• Olende, 1976	6,700	...	...	...	1,104	1,103,223	33.5
		• P.G.S. Marine, 1978	8,200	...	...	...	1,964	2,625,518	32.0
		• Port Gentil Ocean, 1964	7,500	...	...	...	1,653	16,972,271	32.9
		Tchengue, 1959	3,600	...	...	...	1,542	26,588,424	27.2
		• Tchengue Ocean, 1963	6,500	...	...	...	410	7,257,803	31.2
		• Torpille, 1971	9,800	...	...	...	8,331	50,831,517	36.4
		Other	...	...	...	...	977	25,965,518	...
	SHELL-ELF	Gamba, 1963	3,000	32	...	14	10,704	133,462,235	32.4
		Ivinga, 1967	3,103	22	...	7	10,377	78,160,610	32.5
	SHELL-GULF-ELF	• Lucina-Marine, 1971	...	8	...	1	8,405	18,125,686	37.0
		Total Gabon		**172**	**70**	**62**	**147,668**	**825,147,128**	
GHANA	**AGRI-PETCO**	Saltpond, 1977	6,500	3	...	3	2,100	1,144,224	36.0-39.0
GUATEMALA(e)	**PETRO-MAYO, S.A.**	Rubelsanto, 1974	5,300- 7,000	...	...	...	...	...	26.0-32.0
		Tortugas, 1972	2,400	3	...	...	4,000	2,140,000	...
		West Chinaja, 1977	3,200- 3,800	...	...	...	...	...	30.0-33.0
		Total Guatemala		**3**	**...**	**...**	**4,000**	**2,140,000**	
INDIA(e)	**GUJARAT STATE**	Ankleshwar, 1960	2,953- 3,937						
		Bakrol, 1968	4,593- 4,921						
		Kadi, N., 1968	2,953- 3,909						
		Kadi, S., 1968	5,906- 6,562						
		Kalol, 1961	4,265- 5,250						
		Kathana, 1965	5,250- 5,906						
		Kholka, 1966	4,265- 5,577						
		Kosamba, 1963	1,968- 2,625						
		Nawagam, 1963	4,429- 6,652						
		Sanand, 1963	4,265- 4,593						
		Sobhasen, 1968	4,429- 5,906						
		Wovel, 1963	4,265- 4,593		1,600		185,000	865,000,000	22.0-48.0
	ASSAM STATE	Digboi, 1890	300-7,500						
		Geleki, 1968	12,632-12,795						
		Lakwa, 1965	8,038-12,795						
		Moran, 1958	11,000						
		Nahorkatiya, 1953	9,500						
		Rudrasagar, 1961	10,171-10,500						
	MAHARASHTRA STATE	• Bombay High, 1974	4,530-4,630						
		Total India			**1,600**		**185,000**	**865,000,000**	
INDONESIA	**PERTAMINA(e)**	Rantau, 1929	3,156	...	...	...	...	...	56.6
		Paluh Tabuhan Timur, 1937	3,868	...	...	...	...	...	51.9
		Sungai, 1973	5,758	...	...	...	...	...	52.8
		Gobang, 1960	1,845	...	...	...	...	...	60.8
		Tanjung Tiga, 1948	4,600	...	...	...	...	...	27.3
		Talang Jimar, 1937	4,200	...	...	...	...	...	28.4
		Liman, 1928	4,950	...	...	...	...	...	27.6
		Belimbing, 1964	5,280	...	...	...	...	...	27.2
		Benakat Timur, 1974	2,786	...	...	...	...	...	27.2
		Tempino, 1931	2,700	...	...	...	...	...	42.1
		Kenali Asam, 1931	3,800	...	...	...	...	...	31.8
		Ogan, 1956	4,313	...	...	...	...	...	28.3
		Benuang, 1948	7,382	...	...	...	...	...	57.5
		Bekasap, 1955	2,500	...	...	...	...	...	32.8
		Bekasap South, 1968	3,500	...	...	...	...	...	34.1
		Benar, 1973	2,200	...	...	...	...	...	31.7
		Cebakan, 1975	4,700	...	...	...	...	...	30.2
		Intan, 1977	3,867	...	...	...	...	...	32.9
		Kopar, 1974	5,664	...	...	...	...	...	33.3
		Kotabatak, 1952	4,700	...	...	...	...	...	27.6
		Libo, 1968	6,077	...	...	...	...	...	41.6
		Libo SE, 1973	5,900	...	...	...	...	...	42.7
		Menggala North, 1968	3,600	...	...	...	...	...	32.4
		Menggala South, 1968	4,000	...	...	...	...	...	33.7

WORLDWIDE PRODUCTION	Name of field, discovery date	Depth, feet	No. of wells Flow	Artificial lift	Shut-in*	B/d average, first 6 mo. 1980	Cumulative, bbl, to July 1, 1980	°API gravity
	Minas, 1944	2,400	235	1,275	1,585	661,577	5,145,398,000	35.2
	Mutiara, 1976	3,494	...	...	...	...	...	34.0
	Obor, 1978	7,148	...	...	...	...	...	39.8
	Pager, 1974	4,425	...	...	...	...	...	37.5
	Pelita, 1977	7,497	...	...	...	...	...	39.8
	Pomatang, 1959	2,800	...	...	...	...	...	31.7
	Pematang Bow, 1969	5,000						36.6
	Porkebunan, 1977	2,334	...	...	...	...	...	29.3
	Petani, 1964	4,700	...	...	...	...	...	32.9
	Petapahan, 1971	4,300	...	...	...	...	...	27.8
	Pinang, 1971	3,950	...	...	...	...	...	28.9
	Pinggir, 1972	3,200	...	...	...	...	...	34.8
	Pudu, 1972	5,500	...	...	...	...	...	35.7
	Pungut, 1951	2,800	...	...	...	...	...	37.4
	Rangau, 1969	6,000	...	...	...	...	...	40.6
	Seruni, 1975	3,150	...	...	...	...	...	29.5
	Sikladi, 1975	4,500	...	...	...	...	...	34.3
	Singa, 1976	3,238	...	...	...	...	...	...
	Sintong, 1971	2,400	...	...	...	...	...	32.2
	Jatibarang, 1940	4,680	...	...	...	...	...	31.1
	Comara, 1976	8,200	...	...	...	...	...	37.0
	Bunyu, 1923	6,181	...	...	...	...	...	31.7
	Tanjung, 1938	4,734	...	...	...	...	...	39.9
	Sangata, 1970	4,467	...	...	...	...	...	38.6
	Tapian Timur, 1967	8,202	...	...	...	...	...	...
	Klamono, 1936	500	...	...	...	...	...	18.5
	Other	...	...	...	...	...	...	...
CALTEX[e]	Aman, 1974	3,280	3	755	127	185,582	747,990,000	37.5
	Balam SE, 1973	4,370	...	...	...	...	...	30.4
	Balam South, 1969	1,500	...	...	...	...	...	33.1
	Bangko, 1970	1,500	...	...	...	...	...	34.2
	Suram, 1971	1,700	...	...	...	...	...	27.8
	Topaz, 1977	5,149	...	...	...	...	...	33.3
	Tandun, 1969	3,000	...	...	...	...	...	32.7
	Telinga, 1975	4,703	...	...	...	...	...	38.8
	Ubi, 1976	4,847						32.7
	Duri, 1941	600	...	...	...	...	...	19.7
	Kulin, 1970	1,400	...	...	...	...	...	13.2
	Sebanga, 1940	1,458	...	...	...	...	...	...
	Lindai, 1971	1,131	...	...	...	...	...	30.8
	Menggala S., 1968	4,000	...	...	...	...	...	33.7
	Ujung Tanjung, 1975	2,501	...	...	...	...	...	30.3
	Kasikan, 1972	830	...	...	...	...	...	27.8
	Terantam, 1973	851	...	...	...	...	...	31.6
	Damar, 1974	5,707	...	...	...	...	...	34.8
	Podada, 1973	945	...	...	...	...	...	31.1
	Sabak, 1974	2,398	...	...	...	...	...	35.5
	Langak, 1976	1,500	...	...	...	...	...	31.8
	Other	...	...	...	...	...	...	...
STANVAC (Central Sumatra)	Sago, 1940	1,800	...	78	26	2,964	113,859,126	33.9
	Lirik, 1939	1,600	...	37	25	2,006	32,697,513	34.2
	Molek, 1956	2,600	...	19	11	1,975	9,147,346	34.2
	N. Pulai, 1951	1,800	...	23	34	1,578	34,091,994	34.2
	C. Pulai, 1970	1,800	...	...	2	...	70,331	33.7
	S. Pulai, 1941	1,800	...	8	15	569	3,410,694	34.0
	Pondok, 1959	1,800	...	...	4	...	134,304	34.1
	Binio, 1972	1,617	...	24	11	1,673	9,112,739	34.0
	Pekan, 1976	3,671	...	26	5	2,035	3,259,749	35.0
	Merbau, 1979	2,952	...	19	2	3,164	803,383	35.7
	Kerumutan, 1980	3,180	...	1	3	128	23,073	35.2
STANVAC (South Sumatra)	Talang Akar, 1922	2,800	...	23	456	551	243,474,870	35.3
	Benakat, 1932	1,600	...	61	219	2,312	129,815,383	35.1
	Selo, 1938	2,998	...	...	21	...	492,482	37.2
	Jirak, 1930	900	...	24	225	689	55,165,867	35.1
	Raja, 1940	6,000	20	3	39	3,168	22,418,366	38.1
	Abab, 1951	6,000	10	19	75	2,665	34,667,161	36.2
	Dewa, 1971	7,675	4	6	29	822	7,468,520	37.9
	Ibul, 1970	5,600	3	9	24	1,236	17,550,495	36.1
	Rambutan, 1972	4,750	12	3	7	822	2,422,208	42.1
	N. Kruh, 1980	4,299	1	...	3	457	83,487	41.7
	Others	...	10	10	269	788	125,440,161	...
ARCO (Java Sea)	• Ardjuna, 1969	2,380- 7,250	64	53	6	119,130	272,409,700	37.0
	• Arimbi, 1972	2,943	1	10	...	7,096	13,545,548	33.0
(N.E. Kalimantan)	Sembakung, 1976	2,600	5	1	...	4,667	7,371,229	36.0
PHILLIPS GROUP	Salawati, 1976	5,749	...	6	5	3,102	14,770,788	39.2
ROY M. HUFFINGTON INC.	Badak, 1972	5,800- 8,500	26	4	...	8,600	20,645,350	38.0
	Other	...	10	2	3	710	1,213,977	30.0
TOTAL/INPEX	• Bekapai, 1972	5,728	21	...	10	36,685	83,603,007	40.5
	• Handil, 1974	7,543	62	...	12	163,621	231,654,196	31.3
UNION OIL	• Attaka,* 1970	7,500	55	...	8	95,070	269,290,064	43.0
	• Melahin, 1972	7,500	6	...	...	1,583	3,434,659	26.0
	• Kerindingan, 1972	7,000	7	...	1	931	3,402,826	31.0

	WORLDWIDE PRODUCTION	Name of field, discovery date	Depth, feet	No. of wells			B/d average, first 6 mo. 1980	Cumulative, bbl, to July 1, 1980	°API gravity
				Flow	Artificial lift	Shut-in*			
		• Sepinggan, 1973	11,150	9	...	3	9,525	24,603,653	35.0
		• Yakin, 1976	5,100	13	...	1	1,918	3,914,991	18.0
	AARNL(e)	Buia, 1971	850	...	26	34	927	2,011,000	22.0
	ASAMERA(e)(N. Sumatra)	Julo Rayeu, 1929	2,555	42	32	140	8,445	76,230,000	54.4
		Tempino, 1931	2,700	...	...	...	...	...	...
		Tualang, 1973	3,137	...	...	...	...	...	50.6
		Other	...	...	...	...	...	...	...
	CONOCO GROUP(e)	• Udang, 1974	7,500	7	...	...	9,825	5,374,000	40.0
	IIAPCO(e)	• Cinta, 1970	3,500	11	90	13	96,237	223,771,000	34.0
		• Gita, 1972	7,000	...	...	...	...	...	34.5
		• Kitty, 1973	2,700	...	...	...	...	...	18.0
		• Nora, 1973	3,200	...	...	...	...	...	29.0
		• Rama, 1974	3,200	...	...	...	...	...	31.0
		• Selatan, 1971	4,000	...	...	...	...	...	19.5
		• Zelda, 1971	7,500	...	...	...	...	...	35.0
	MOBIL OIL(e)	Arun, 1971	10,588	11	...	14	54,396	41,111,000	62.5
	PETROMER TREND(e)	Canderawasih, 1976	3,500	1	113	16	63,874	155,015,000	28.4
		Jaya, 1973	3,050	...	...	...	...	...	42.5
		Kasim, 1973	3,350	...	...	...	...	...	37.8
		Walio, 1975	2,750	...	...	...	...	...	35.0
		Other	...	...	...	...	...	...	...
	TESORO(e)	Samboja, 1916	1,600	21	262	1,246	8,680	523,951,000	41.3
		Sanga Sanga, 1893	1,564	...	...	...	...	...	28.7
		Tarakan, 1906	3,943	...	...	...	...	...	18.1
		Other	...	...	...	...	...	...	...
	LEMIGAS(e)	All fields		5	66	362	561	129,594,000	...
		Total Indonesia		**675**	**3,088**	**5,091**	**1,572,344**	**8,845,914,240**	
IRAN(e)	NIOC	Agha Jari, 1936	7,440	...	...	...	1,900,000	29,415,000,000	34.0
		Ahwaz Asmari, 1958	8,150						32.0
		Ahwaz Bangestan, 1958	12,000						24.3
		Bibi Hakimeh, 1961	4,570						29.9
		Binak, 1959	10,440						29.9
		Chillingar, 1974	3,350						39.3
		Cheshmeh Khush, 1967	10,700						27.7
		Dehluran, 1972	11,900						34.3
		Gachsaran, 1937	3,400						31.0
		Haft Kel, 1927	1,980						37.7
		Karanj, 1963	5,360						33.9
		Kharg, 1961	10,900						31.6
		Kupal, 1965	10,500						32.8
		Lab-e Safid, 1968	4,350						35.3
		Mansuri, 1963	7,100						28.4
		Marun, 1963	9,400						32.6
		Masjid-e Suleiman, 1908	1,600						39.3
		Naft Safid, 1938	5,000						36.8
		Paris, 1964	4,670						38.8
		Par-e Siah, 1964	4,250						37.7
		Pazanan, 1961	7,250						37.2
		Rag-e Safid, 1964	7,230						28.6
		Ramin, 1966	12,200						32.9
		Ramshir, 1962	8,750						27.6
		Sulabedar, 1971	3,400						30.4
		Naft-e Shah, 1923	2,000- 3,000						43.0
	SIRIP	• Bahregansar, 1960	9,000						30.0
		• Hendijan, 1968	11,000						23.0
		• Nowruz, 1966	8,200						21.0
	IMINOCO	• Rakhsh, 1969	7,650						35.8
		• Rostam, 1966	7,000						34.4
	AMOCO	• Ardeshir, 1969	2,800						27.0
		• Cyrus, 1962	7,000						18.3
		• Darius, 1961	11,000						34.0
		• Fereidoon, 1966	7,000						28.5
	LAPCO	• Sassan, 1965	7,500- 8,100						34.0
		Total Iran		**...**	**...**	**...**	**1,900,000**	**29,415,000,000**	
IRAQ(e)		Ain Zalah, 1939	5,200- 6,500	250	...	...	3,500,000	15,231,000,000	31.0
		Bai Hassan, 1953	4,800- 5,400						34.0
		Butmah, 1953	3,900						30.0
		Hamrin, 1973	2,000						...
		Jambur, 1954	5,500- 12,500						38.0
		Kirkuk, 1927	2,800- 4,200						36.0
		Naft Khaneh, 1909	3,500						42.5
		Rumaila North, 1958	10,000						34.0
		Rumaila, 1953	10,800						35.0
		Zubair, 1949	11,000						34.2
		Abu Ghurab							27.7
		Buzurgan							27.7

*With Inpex

WORLDWIDE PRODUCTION		Name of field, discovery date	Depth, feet	Flow	No. of wells Artificial lift	Shut-in*	B/d average, first 6 mo. 1980	Cumulative, bbl. to July 1, 1980	°API gravity
Iraq (cont.)		Jabal Fauqui							...
		Lahis							...
		Total Iraq		**250**	**...**	**...**	**3,500,000**	**15,231,000,000**	
ISRAEL(e)		Heletz-Brur, 1965	5,200	...	6	...	500	12,162,000	28
		Kochav, 1963	5,500	...	3	...	150	4,000,000	27
		Total Israel		**...**	**9**	**...**	**650**	**16,162,000**	
ITALY	**AGIP**	Cavone, 1979	10,663-18,068	1	...	5	653	116,799	25.6
		• Gela, 1956	11,280-11,350	45	14	20	10,022	96,970,751	6.6-14.5
		Malossa, 1973	17,881-21,231	7	...	4	16,946	13,555,896	55
		Pisticci-S. Cataldo, 1960	6,820- 6,880	6	...	3	628	5,310,376	11.4
		Other		9	1	26	346	9,932,677	2.8-55.2
	ELF-AQUITAINE	• Santa Maria "A" Mare, 1974	8,487	5	...	2	5,110	6,308,500	21.5
	SOMICEM	Ragusa, 1954	5,690- 5,860	...	28	15	4,468	114,327,028	19.5
		Total Italy		**73**	**43**	**75**	**38,173**	**246,524,027**	
JAPAN	**JAPEX**	Higashi-Niigata, 1965	4,600- 9,200	22	...	2	1,167	6,070,247	53.9
		Sarukawa, 1958	2,000- 3,200	6	34	10	691	8,967,804	32.3
		Yoshii, 1968	8,000	13	...	12	1,398	5,686,176	61.8
		Other		107	4	51	1,492	24,944,620	
		• Aga-Oki, 1972	7,590	24	...	...	1,439	2,651,430	43.7
	TEIKOKU OIL	Kubiki, 1954	1,000- 6,400	27	45	80	289	11,677,059	29.7
		Minami-Aga, 1964	7,300- 9,600	11	...	15	605	12,645,708	38.5
		Yabase, 1933	1,100- 5,800	8	59	7	308	32,126,905	33.0
		Other		8	20	5	95	2,274,159	
		Total Japan		**226**	**162**	**182**	**7,484**	**107,044,108**	
KUWAIT	**KOC (e)**	Ahmadi, 1953	4,800						32.9
		Bahra, 1956	8,500						
		Burgan, 1938	4,800						32.0
		Magwa, 1951	4,800						33.6
		Minagish, 1959	10,000	590			1,600,000	20,005,000,000	34.2
		Raudhatain, 1955	8,600						34.7
		Sabriya, 1956	8,300						31.5
		Umm Gudair, 1963	9,000						26.7
		Total Kuwait		**590**			**1,600,000**	**20,005,000,000**	
LIBYA	**AGIP**	Bu Attifel, 1968	14,300	21	...	7	167,100	407,395,602	41.0
	AQUITAINE (e)	Majid, 1968	9,000- 9,800	NA	NA	NA	6,000	46,415,000	40.5
	ESSO LIBYA	Arshad, 1966	10,100	...	...	8	595	7,025,803	42.0
		Jebel, 1962	8,100	15	...	19	15,051	149,819,935	38.0
		Nasser, 1959	5,500- 7,600	5	85	111	82,497	1,939,503,136	38.0
		Lehib-Dor Marada Unit, 1965	9,500	7	...	16	16,022	71,951,582	50.0
		Other		...	...	7	...	9,110,257	
	ESSO SIRTE	Raguba, 1961	5,400	19	6	43	48,429	532,234,126	43.0
	LNOC (e)	Beda, 1959	4,000						36.0
		Bualawn, 1972	6,000						40.0
		Dor, 1967	6,400						33.2
		Kotla, 1963	5,500	NA	NA	NA	450,000	2,520,000,000	34.0
		Sahabi B., 1961	9,000						39.0
		Sahabi D., 1968	10,000						
		Sarir, 1961	9,000						37.2
	MOBIL	Amal, 1959	9,900	1	62	49	57,502	660,382,000	37.5
		Choboc, 1971	2,900	...	1	1	1,163	4,475,000	50.0
		Eteila, 1977	6,380	1	...	1	889	1,034,000	38.0
		Farigh, 1969	12,000	2	...	1	6,256	7,909,000	40.8
		Farrud, 1965	2,200	1	4	9	2,586	20,931,000	42.0
		Ghazzun, 1975	5,300	...	3	1	1,167	2,209,000	34.0
		Ora, 1962	7,250	5	9	26	6,067	93,151,000	40.0
		Rakab, 1968	2,600	...	4	6	3,301	31,753,000	36.0
		Tmed, 1974	4,730	...	1	...	850	2,175,000	34.0
	OASIS	Bahi, 1968	3,600- 3,750	...	49	2	41,315	300,707,469	43.4
		Belhedan, 1962	7,000	5	...	5	5,962	42,319,624	33.6
		Dahra, 1959	3,100- 3,700	5	46	...	26,258	412,909,731	37.0-41.0
		Defa, 1969	5,400- 5,900	31	44	43	212,269	695,604,725	35.6
		Gialo, 1961	2,200- 6,300	3	239	60	220,264	1,606,794,336	35.7
		Harash, 1978	7,400	...	4	...	4,369	4,842,142	34.6
		Khalifa, 1978	5,400- 7,000	3	...	5	2,095	3,725,002	34.6
		Masrab, 1978	10,000	7	...	...	3,153	7,240,151	39.6
		Samah, 1961	9,000	7	...	13	16,900	282,510,820	33.4
		Waha, 1960	6,600	...	46	31	98,787	767,320,373	36.0
		Zaggut, 1962	6,000	7	...	14	970	20,940,422	36.4
	OCCIDENTAL	Ali, 1975	3,900	0	1	1	1,540	3,768,828	50.0
		Almas, 1975	4,000	0	7	0	5,185	13,201,501	49.5
		Intisar A, 1967	9,750	9	2	8	37,318	640,673,228	45.0
		Intisar B, 1974	9,600	2	0	0	1,804	4,202,719	50.0

WORLDWIDE PRODUCTION	Name of field, discovery date	Depth, feet	Flow	No. of wells Artificial lift	Shut-in*	B/d average, first 6 mo. 1980	Cumulative, bbl, to July 1, 1980	°API gravity
	Intisar C, 1967	9,650	0	3	3	4,578	83,678,680	37.5
	Intisar D, 1967	9,400	14	7	4	127,377	873,386,315	39.0
	Intisar E, 1968	5,300- 7,100	0	8	3	3,663	9,279,018	34.7
	Nafoora-Augila, 1966	2,200-10,000	2	40	33	93,099	715,446,091	35.5
	Aswad, 1978	6,250	6	0	0	6,984	4,095,859	46.0
	Sabah, 1977	5,500	3	9	5	28,150	14,729,330	42.0
	Zella, 1977	6,750	24	0	0	31,567	13,630,996	48.1
	Other		0	1	2	455	1,211,230	
	Total Libya		**205**	**681**	**537**	**1,839,537**	**13,033,453,413**	
MALAYSIA ESSO MALAYSIA[e]	• Bekok, 1976	5,500	...	...	...	...	...	47.6
	• Pulai, 1973	4,300	56	...	...	110,000	85,021,000	43.3
	• Tapis, 1975	6,700	...	...	...	...	...	43.3
	• Tembungo, 1971	6,000	...	...	...	...	...	37.6
SARAWAK SHELL BERHAD	• Bakau, 1971	11,000	2	...	1	1,387	5,671,432	39.0
	• Baram, 1963	9,500	15	...	18	8,173	97,588,036	40.5
	• Baronia, 1967	11,000	23	...	17	33,741	87,357,655	42.0
	• Betty, 1967	...	9	...	...	20,339	11,174,665	38.0
	• Fairley-Baram, 1963	...	2	...	...	1,446	4,693,349	40.0
	• West Lutong, 1966	...	13	...	12	10,206	92,831,162	39.5
	Miri, 1911	...	...	...	...	...	79,727,300	27.0
	• Temana, 1972	...	10	...	...	5,465	1,004,875	35.0
	• Tukau, 1966	...	28	...	4	17,148	34,466,163	29.2
SABAH SHELL	• Samarang, 1972	...	55	...	5	68,365	106,207,749	37.0
	• South Furious, 1974	...	4	...	...	4,050	733,130	30.0
	Total Malaysia		**217**	**...**	**57**	**280,320**	**606,476,516**	
MEXICO PEMEX NORTH ZONE, NE	Monterrey, 1950	6,950	...	2	4	415	11,526,400	47.0
	Other		3	6	14	186	20,666,908	
NORTH ZONE	• Arenque, 1970	11,362	14	...	...	9,198	55,893,928	26.0
	Constituciones, 1956	6,350	57	77	36	8,748	58,925,575	17.0
	Ebano-Pánuco, 1901	1,450	77	170	267	5,697	931,772,911	12.0
	Tamaulipas	4,200	71	63	9	9,693	57,381,110	19.0
	Other		109	105	151	443	22,303,277	
NORTH ZONE, S.	Chicontepec, 1973	4,264	37	...	2	3,371	2,880,311	34.1
	• Isla de Lobos, 1963	6,875	2	...	1	709	20,005,955	40.0
	• Marsopa, 1974	10,198	7	...	4	3,026	10,164,162	39.0
	Naranjos-C. Azul, 1909	1,800	199	...	854	7,998	1,194,845,538	22.0
	Tres Hermanos, 1959	6,960	29	...	26	3,036	98,904,237	21.0
	Other		73	...	428	818	23,389,805	...
CENTRAL ZONE, POZA RICA	• Atun, 1966	9,040	6	...	27	3,825	32,945,611	37.0
	• Bagre, 1973	10,919	8	...	21	8,982	29,813,845	33.0
	Escolín, 1942	7,216	1	79	59	13,800	181,634,820	26.3
	Hallazgo, 1955	10,170	...	33	9	3,072	66,031,565	25.0
	Jiliapa, 1958	7,390	...	22	17	1,075	26,177,722	34.0
	Mecatepec, 1941	7,544	1	40	22	2,839	130,448,090	29.8
	Miquetla, 1959	6,480	24	29	54	2,548	21,780,886	35.0
	Poza Rica, 1930	7,090	22	132	19	33,974	830,512,812	35.0
	Pres. Aleman, 1949	8,036	17	44	8	3,726	25,905,252	26.0
	Remolino, 1962	10,745	...	22	11	1,163	19,140,439	29.5
	San Andres, 1956	10,410	8	91	21	22,530	303,735,822	29.0
	Other		72	135	71	10,709	82,729,495	
CENTRAL ZONE, N. FAJA DE ORO	Acuatempa, 1955	4,085	10	...	4	590	25,437,295	21.0
	El Muro, 1965	3,966	6	...	6	2,108	17,424,363	17.0
	E. Ordoñez, 1952	5,220	9	...	8	1,325	55,363,259	21.0
	Ocotepec, 1953	3,737	13	...	9	495	18,901,104	20.0
	Santa Agueda, 1953	4,780	20	...	5	2,062	99,915,040	16.0
	Other		48	9	197	1,650	55,065,899	
CENTRAL ZONE, VERACRUZ	Metapionche, 1974	11,129	22	...	3	7,603	9,066,060	37.0
	Other		17	...	58	3,990	24,181,666	...
SOUTHERN ZONE, AGUA DULCE	Blasillo, 1967	7,216	16	17	8	7,250	13,077,715	40.0
	Cinco Presidentes, 1960	6,862	9	93	30	2,688	227,300,352	35.0
	El Burro, 1931	2,200	...	8	3	1,639	20,094,827	26.0
	La Venta, 1954	4,730	6	25	29	2,811	55,273,690	41.0
	Ogarrio, 1957	5,790	26	58	35	10,921	118,963,990	38.0
	Otates, 1965	7,469	6	6	19	1,326	22,072,793	39.0
	Rodador, 1971	11,398	5	9	6	2,555	3,817,552	26.0
	Sánchez Magallanes, 1957	4,240	7	101	62	7,794	118,455,727	27.0
	San Ramón, 1967	9,517	8	30	10	7,121	46,015,627	30.0
	Tonalá, 1928	1,770	1	45	65	1,616	75,088,183	28.0
	Other		2	16	5	12,208	39,157,093	
SOUTHERN ZONE, COMALCALCO	Agave, 1977	13,450	9	...	2	37,525	25,079,280	41.7
	Arroyo Zanapa, 1978	14,599	1	...	...	8,297	3,056,644	38.9
	Arteza, 1977	11,800	2	...	...	7,511	22,199,253	26.4
	Ayapa, 1972	8,200	4	...	5	722	4,169,968	7.2
	Cacho Lopez, 1977	14,250	1	...	...	2,184	1,899,882	39.0
	Cactus, 1972	14,100	26	...	6	98,413	212,335,128	31.5
	Carrizo, 1962	3,500	1	6	8	744	9,079,716	23.3
	Castarrical, 1967	10,080	2	31	10	3,359	33,423,594	29.3
	Comoapa, 1979	14,432	1	...	...	4,144	1,894,397	44.5
	Copano, 1977	11,890	2	...	3	1,172	981,498	43.9

WORLDWIDE PRODUCTION	Name of field, discovery date	Depth, feet	No. of wells Flow	Artificial lift	Shut-in*	B/d average, first 6 mo. 1980	Cumulative, bbl, to July 1, 1980	°API gravity
	Cunduacán, 1974	13,775	21	...	3	165,145	268,343,540	28.9
	El Golpe, 1963	3,500	6	48	16	5,957	65,839,977	25.7
	Giraldas, 1977	15,225	5	...	1	20,973	9,016,967	37.0
	Iride, 1974	13,775	9	...	2	62,732	59,901,620	28.5
	Mecoacán, 1957	2,200	6	11	8	1,330	35,134,846	8.6
	Mundo Nuevo, 1977	11,800	3	...	4	9,246	6,976,516	46.0
	Nispero, 1974	14,100	10	...	4	57,821	52,447,832	34.4
	Ojiacaque, 1977	11,150	14	...	2	65,770	58,320,176	29.1
	Paredón, 1978	15,690	4	...	...	23,254	12,558,916	39.8
	Platanal, 1978	15,900	1	...	1	4,509	2,303,354	30.2
	Rio Nuevo, 1975	14,950	4	...	...	21,176	15,617,542	34.8
	Samaria (Cret), 1973	14,209	41	...	12	309,600	541,093,143	31.0
	Santuario, 1966	9,617	8	12	13	4,727	25,142,640	37.0
	Sitio Grande, 1972	13,766	17	...	4	90,599	170,120,705	35.0
	Sunuapa, 1978	12,887	3	...	2	17,171	16,340,671	32.8
	Tintal, 1968	5,904	5	...	6	404	3,334,235	22.0
	Topan, 1978	11,172	1	...	...	1,138	500,042	25.4
	Tupilco, 1959	9,685	9	33	37	4,541	40,784,360	27.0
	Other		7	2	34	17,472	12,636,444	
SOUTHERN ZONE, EL PLAN	Agata, 1956	3,830	2	6	4	654	10,888,720	34.0
	Bacal, 1976	3,500	18	4	1	40,693	31,882,217	35.0
	Concepción, 1974	1,600	11	4	1	1,598	2,387,332	31.0
	Cuichapa, 1935	2,200	9	75	14	10,148	105,868,632	30.0
	El Plan, 1931	1,700	1	42	78	3,655	147,585,667	30.0
	Lacamango, 1973	1,700	18	7	...	3,609	6,160,533	26.3
	Los Soldados, 1953	4,492	6	11	3	1,289	21,721,144	32.0
	Other		3	34	65	165	36,904,379	...
SOUTHERN ZONE, NANCHITAL	Ixhuatlan Ote., 1965	1,960	8	20		1,429	7,203,516	22.6
	Moloacan, 1962	500	6	164	5	3,801	15,540,263	22.3
	Other			5	8	80	17,428,639	...
GULF OF CAMPECHE	• Cantarell, 1976	8,528	25	...	1	474,492	105,243,928	21.3
OTHER DISTRICTS			4	...	49	88	8,435,293	
	Total Mexico		**1,402**	**1,982**	**3,109**	**1,828,670**	**7,531,971,860**	
MOROCCO[e]	Haricha, 1957	3,000	...	...	...	200	2,977,200	40.0
	Other		...	...	...	...	12,554,000	
	Total Morocco					**200**	**15,531,200**	
NETHERLANDS **SHELL/ESSO**	DeLier-Munster, 1955	5,200	29	...	7	884	14,801,043	33.2
	Ijsselmonde-Ridderkerk, 1956	5,200	64	...	...	5,988	75,246,753	18.0
	Schoonebeek, 1943	2,500	288	...	180	13,197	194,557,345	24.8
	Wassenaar-Meyendel, 1956	4,200	33	...	2	2,795	40,172,472	18.6
	Zoetermeer, 1957	3,200	14	...	6	579	8,169,308	16.4
	Other		52	...	40	566	9,642,257	
	Total Netherlands		**480**	...	**235**	**24,009**	**342,589,178**	
(Flowing and artificial lift wells combined under "Flow.")								
NEW ZEALAND								
SHELL-BP-TODD GROUP	• Kapuni,[c] 1959	10,318-11,775	10	...	1	3,441	23,083,233	54.0
MAUI DEVELOPMENT LTD.	• Maui,[c] 1969	8,615-11,068	6	...	1	2,836	1,325,440	58.0
	Total New Zealand		**16**	...	**2**	**6,277**	**24,408,673**	
NIGERIA **AGIP-PHILLIPS**	Akri, 1973	9,600-10,600	8	...	3	14,551	33,610,236	39.9
	Akri West, 1975	9,900-10,200	...	...	2	353	482,258	31.4
	Ashaka, 1968	9,700-12,000	1	...	...	900	692,783	41.0
	Beniku, 1974	12,000	2	...	...	3,232	1,223,424	44.3
	Ebegoro, 1976	11,500-12,000	7	...	2	15,514	31,052,664	35.7
	Ebocha, 1965	8,000-10,900	13	...	3	14,492	84,633,903	38.5
	Gilli-Gilli, 1967	7,600-14,000	3	...	...	1,595	329,484	47.4
	Idu, 1973	7,750-10,700	4	...	4	5,748	21,520,011	28.0
	Kwale, 1968	10,000-11,500	1	...	1	58	109,312	44.3
	M'Bede, 1966	7,300- 9,400	10	...	4	18,249	118,167,509	41.1
	Obama, 1975	11,600-14,300	6	...	1	26,072	39,814,765	38.2
	Obiafu, 1973	9,300-12,200	13	...	2	23,743	47,985,518	41.3
	Obrikom, 1973	8,000-10,000	5	...	5	6,490	38,468,017	41.5
	Odugri, 1972	12,500	2	...	...	3,223	4,159,247	44.8
	Ogbogene, 1976	11,500-12,500	1	...	1	1,207	2,745,742	37.0
	Okpai, 1968	10,000-12,000	4	...	1	4,338	4,529,096	42.3
	Omoku West, 1975	11,500	1	...	...	1,235	2,647,939	35.0
	Oshi, 1974	9,600-11,300	10	...	1	21,323	36,034,341	39.5
	Tebidaba, 1975	10,300-13,300	8	...	2	26,079	61,010,580	35.5
ASHLAND	Izombe, 1974	9,500	10	...	1	7,518	15,311,809	43.2
	Ossu, 1974	9,500	1	...	3	311	778,299	44.0
ELF	Aghigo, 1972	6,000- 8,500	1	4	5	4,250	10,704,850	24.6
	Okpoko, 1967	6,000- 7,500	2	2	1	4,681	10,849,198	19.0
	Obodo-Jatumi, 1966	6,000-11,000	9	...	1	14,721	27,483,789	29.0
	Upomami, 1965	6,000- 7,000	...	7	1	3,580	7,820,145	17.5
	Obagi, 1964	6,000-10,000	24	6	5	57,188	192,926,043	24.0
	Erema, 1972	9,800	1	...	...	1,290	2,609,744	30.0

WORLDWIDE PRODUCTION	Name of field, discovery date	Depth, feet	Flow	No. of wells Artificial lift	Shut-in*	B/d average, first 6 mo. 1980	Cumulative, bbl, to July 1, 1980	°API gravity
GULF	Abiteye, 1970	5,750- 9,400	11	...	2	21,074	26,090,594	37.8
	• Delta, 1965	5,600- 9,500	23	...	4	35,474	113,046,150	34.0
	• Delta South, 1965	7,100-10,179	21	...	6	42,187	195,089,610	38.6
	• Isan, 1970	5,900- 9,000	5	...	6	5,136	32,395,494	39.4
	Makaraba	7,100-12,005	18	2	4	20,328	29,295,179	31.5
	• Malu, 1969	4,800- 6,300	12	...	3	15,483	53,400,241	40.0
	• Mefa, 1965	8,570-12,030	4	...	1	3,985	6,939,963	37.1
	• Meji, 1965	5,200-10,900	18	...	3	33,431	98,132,417	32.9
	• Meren, 1965	5,000- 7,500	36	...	14	77,780	347,194,961	31.3
	• Okan, 1964	5,500- 9,245	53	...	9	72,489	314,834,606	36.0
	• Parabe Eko, 1968	4,500- 8,200	17	...	8	14,647	76,566,266	36.7
	Utonana, 1971	7,400- 9,165	1	...	3	1,306	4,105,135	35.6
	• W. Isan, 1971	7,825-10,229	9	...	...	14,474	20,225,575	38.1
	Yorla South, 1974	11,389-12,635	...	...	2	161	822,189	42.0
	Jisike, 1975	6,300- 7,600	4	...	1	1,886	472,500	44.0
MOBIL	• Adua, 1967	8,354	7	...	2	15,594	17,788,838	33.0
	• Asabo, 1966	7,209	9	...	2	15,980	111,439,762	33.5
	• Ekpe, 1966	8,946	8	3	3	23,047	144,144,482	33.0
	• Ekpe-ww, 1977	8,141	12	...	...	14,934	7,950,314	33.0
	• Eku, 1966	7,500	2	...	4	4,424	7,936,621	37.6
	• Enang, 1968	7,155	21	...	2	32,942	60,214,586	32.7
	• Etim, 1968	7,334	8	...	...	22,492	66,630,838	36.8
	• Idoho, 1966	9,511	3	...	2	3,084	24,146,915	37.6
	• Inim, 1966	8,188	8	...	2	21,924	91,110,784	36.1
	• Mfem, 1967	7,121	3	...	...	6,195	12,743,218	36.8
	• Ubit, 1968	6,796	33	...	10	32,070	106,243,505	36.8
	• Unam, 1968	6,399	4	...	...	8,154	20,601,013	36.8
	• Utue, 1966	6,998	7	...	...	10,794	45,840,395	37.5
MOBIL-TENNECO-SUN	Abura, 1974	12,000	3	...	...	4,342	2,587,536	45.0-47.0
PAN OCEAN	Ogharefe, 1973	9,900	13	...	10	7,143	12,869,996	47.4
SHELL (Midwest)	Ugh-Ogini, 1964	5,860	9	...	...	3,504	14,889,457	19.0
	Ugh-Uzere-East, 1960	8,500	9	...	4	10,121	71,207,402	23.0
	Ugh-Uzere-West, 1964	8,500	11	...	...	9,457	84,480,552	23.0
	Ugh-Olomoro, 1963	7,000-10,000	25	...	6	30,311	226,699,711	22.0
	Ugh-Oweh, 1964	12,300	10	...	1	7,501	82,500,756	28.0
	Ugh-Kokori, 1960	8,000- 9,800	26	...	1	39,169	259,194,448	42.0
	Ugh-Afiesere, 1966	8,000- 9,000	32	...	1	27,552	81,414,217	22.0
	Ugh-Eriemu, 1961	12,500	16	...	1	13,803	27,699,435	26.0
	Ugh-Ughelli-East, 1959	11,800	4	...	2	5,424	77,060,144	35.0
	Ugh-Ughelli-West, 1963	7,400-10,200	6	...	...	6,100	23,683,359	21.0
	Ugh-Utorogu, 1964	9,000	17	...	2	13,166	109,691,957	25.0
	Ugh-Oroni, 1964	12,000	4	...	3	3,574	21,308,099	22.0
	Ugh-Warri-River, 1961	12,264	3	...	...	1,306	11,582,726	31.0
	Ugh-Evwreni, 1968	10,900	5	...	4	2,889	30,463,702	28.0
	Ugh-Rapele, 1965	12,934	2	...	1	3,151	19,598,254	42.0
	Ugh-Isoko, 1960		2	...	...	1,624	3,228,822	19.0
	Ugh-Osioko, 1967	12,885	2	...	...	1,356	6,370,310	27.0
	Forc-Odidi, 1967	10,980	19	...	1	38,888	147,003,279	37.0
	Forc-Opukushi, 1963	7,823	12	...	1	42,403	45,345,584	29.0
	Forc-Jones Creek, 1967	7,000- 9,000	22	...	7	37,995	321,957,249	29.0
	Forc-Opuama, 1973		4	...	...	6,136	14,838,633	41.0
	Forc-Egwa, 1967	9,350	17	...	3	19,385	99,343,681	37.0
	Forc-Forcados/Yokri, 1968	10,859	80	...	11	103,852	359,173,359	22.0
	Forc-Batan, 1968	11,000	7	...	...	8,719	41,688,927	27.0
	Forc-Escravos Beach, 1969	9,931	7	...	2	10,178	38,711,584	36.0
	Forc-Otumara, 1969	8,176	20	...	...	34,038	90,09[illegible]56	25.0
	Forc-Saghara, 1970	8,590	5	...	1	6,626	17,602,053	31.0
	Forc-Ajuju, 1970	13,324	1	...	...	1,320	7,628,097	27.0
	Forc-Benisede, 1973		15	...	...	40,308	31,418,317	23.0
	Node-Sapele, 1970	12,788	10	...	2	23,020	70,600,009	42.0
	Node-Amukpe, 1970	12,378	2	...	...	1,161	9,421,984	43.0
	Node-Oben, 1972	12,036	16	...	1	27,616	48,855,659	40.0
	Other		1	...	...	145	471,618	
SHELL (East)	Phl-Bomu, 1958	6,700- 7,500	33	...	5	35,100	308,956,583	36.0
	Phl-Imo River, 1959	5,800-10,000	35	...	6	45,283	369,846,024	32.0
	Phl-Nkali, 1963	12,000	5	...	5	6,299	23,062,526	42.0
	Phl-Elelenwa, 1959	11,000	3	...	4	3,742	22,513,813	39.0
	Phl-Otamini, 1973		3	...	1	4,361	9,601,928	36.0
	Phl-Umuechem, 1969	5,800-10,700	13	...	5	12,595	129,714,247	36.0
	Phl-Akpor, 1965		3	...	...	537	1,102,518	36.0
	Phl-Tai, 1965		2	...	...	1,325	3,354,906	36.0
	Phl-Apara, 1960	9,000	5	...	2	4,323	14,922,004	36.0
	Phl-Bodo-West, 1959	9,700	9	...	2	6,357	66,228,232	29.0
	Phl-Afam, 1956	6,000	9	...	2	7,203	41,777,572	45.0
	Phl-Korokoro, 1959	8,000- 9,800	7	...	1	5,018	75,656,569	36.0
	Phl-Yorla, 1970	11,917	10	...	3	9,892	45,319,990	44.0
	Phs-Bonny, 1959	12,254	14	...	1	21,003	62,315,837	36.0
	Phs-Alakiri, 1959	10,000	6	...	9	5,495	55,435,292	40.0
	Phs-Buguma Creek, 1960	12,195	5	...	1	2,162	11,929,599	42.0
	Phs-Cawthorne Channel, 1963	11,000	17	...	5	40,523	171,797,833	38.0
	Phs-Krakama, 1958	11,530	9	...	1	6,254	14,238,012	24.0
	Phs-Ekulama, 1958	10,483	28	...	1	64,683	109,383,233	32.0
	Phs-Soku, 1958	11,500	22	...	1	20,254	81,144,050	31.0
	Phs-Orubiri, 1971		3	...	3	5,277	9,013,286	38.0

WORLDWIDE PRODUCTION

	WORLDWIDE PRODUCTION	Name of field, discovery date	Depth, feet	No. of wells Flow	Artificial lift	Shut-in*	B/d average, first 6 mo. 1980	Cumulative, bbl, to July 1, 1980	°API gravity
		Egb-Oguta, 1965	10,300	16	...	3	23,846	93,230,468	46.0
		Egb-Assa, 1961	11,300	2	...	...	1,016	3,694,439	21.0
		Egb-Egbema, 1960	10,470	5	...	1	5,657	41,694,566	32.0
		Egb-Egbema West, 1965		17	...	...	35,979	57,477,837	45.0
		Egb-Ahia, 1965	11,500	10	...	2	8,592	71,616,613	37.0
		Eade-Utapate South, 1974		8	...	3	22,746	14,336,035	44.0
		Eade-Opobo South, 1974		6	...	...	9,084	1,644,237	44.0
		Cesw-Nun River, 1960		5	...	1	6,825	20,730,022	39.0
		Cesw-Enwhe, 1965		2	...	...	616	2,286,361	24.0
		Cesw-Etelebou, 1971	12,000	8	...	...	33,689	76,136,426	33.0
		Cesw-Kolo Creek, 1960	12,000	16	...	9	27,439	68,086,898	42.0
		Cesw-Diebu Creek, 1966		12	...	...	26,162	74,936,934	43.0
		Phl-Isimiri, 1964	5,900-11,000	6	...	...	5,228	29,854,075	28.8
		Phl-Ebubu, 1958	8,200	6	...	2	1,548	17,716,214	29.0
		Phl-Onne, 1965	10,384	3	...	...	2,422	6,409,674	29.0
		Phl-Obigbo-North, 1963	6,500-10,000	27	...	3	31,205	125,628,731	22.0
		Phl-Ajokpori, 1967		1	...	1	1,498	2,923,166	29.0
		Phl-Agbada, 1960	8,000-12,000	29	...	3	25,498	119,223,062	32.1
		Phl-Akuba, 1967		1	...	...	849	2,878,249	29.0
		Phl-Obele, 1963	10,000	4	...	1	1,209	3,923,629	26.0
		Cesw-Adibawa, 1967	11,950	...	...	18	6,022	36,169,672	26.0
		Cesw-Adibawa NE, 1973		...	...	3	1,972	7,127,706	26.0
		Cesw-Ubie, 1961	14,380	4	...	...	8,849	17,891,546	28.0
		Phl-Obeakpu, 1975		3	...	...	7,621	7,783,132	45.0
		Cosw-Nembe Creek, 1973		30	...	2	70,666	53,817,932	35.0
		Other		4	...	2	661	24,892,545	
	TEXACO-CHEVRON	• Pennington, 1965	5,000- 7,000	4	...	6	7,358	19,520,295	37.5
		• Middleton, 1972	5,000- 7,000	3	...	3	3,199	9,190,114	37.5
		• North Apoi, 1973	4,000- 7,000	16	...	...	41,773	62,244,928	36.5
		Funiwa, 1978	5,000- 7,000	...	...	2		89,139	37.5
		Total Nigeria		**1,430**	**24**	**330**	**2,173,644**	**8,044,257,838**	
NORWAY	**PHILLIPS**	• Ekofisk, 1969	10,000	35	...	1	218,807	530,263,394	41.1
		• West Ekofisk, 1970	10,200	10	...	...	32,846	50,299,130	43.5
		• Cod, 1968	9,500	6	...	...	71,571	4,662,994	55.0
		• Tor, 1970	10,000	10	...	...	75,722	50,552,546	38.0
		• Albuskjell, 1972	10,400	12	...	...	30,588	9,360,173	45.0
		• Edda, 1972	10,480-10,600	6	...	...	26,876	5,207,488	41.5
		• Eldfisk, 1970	9,350-10,000	18	...	...	118,166	32,624,070	37.6
	MOBIL GROUP	• Statfjord, 1974	7,700	3	...	1	*54,238	*11,506,876	39.0
		Total Norway		**100**	**...**	**2**	**628,814**	**694,476,671**	
OMAN	**PD(O)C**	Al Huwaisa, 1969	5,500	29	...	...	27,729	107,452,699	36.9
		Fahud, 1963	2,000- 6,080	77	...	46	53,663	572,917,598	33.3
		Ghaba North, 1972	2,500- 6,100	8	...	4	10,494	25,831,729	37.9
		Habur, 1975		1	...	1	1,589	2,804,505	15.0
		Lekhwair, 1974		22	...	16	10,289	25,706,636	35.1
		Natih, 1963	7,500	20	...	6	20,476	265,960,378	30.9
		Qarn Alam, 1972	1,370- 6,500	4	...	2	1,322	14,556,395	15.0
		Saih Nihaydah, 1972	8,700- 9,080	12	...	...	37,204	74,044,210	39.3
		Saih Rawl, 1973		15	...	4	22,893	53,233,695	41.4
		Yibal-Shuaiba, 1963	8,465	81	...	6	94,037	288,604,308	38.9
		Total Oman		**269**	**...**	**85**	**279,696**	**1,431,112,153**	
PAKISTAN$^{(e)}$		Balkassar, 1946	8,200	...	5	...	900	22,136,000	26.0
		Dhulian, 1937	8,500	4	...	...	400	40,287,000	43.0
		Joya Mair, 1944	6,890	...	1	...	160	4,736,000	16.0
		Meyal, 1968	12,514	5	...	...	7,500	16,508,000	43.0
		Toot, 1968	14,600	4	...	...	2,600	4,450,000	38.0-41.0
		Total Pakistan		**13**	**6**	**...**	**11,560**	**88,117,000**	
PERU	**BELCO**	• Humboldt, 1960	3,000- 8,500	17	239	89	22,086	96,249,000	38.0
		• Litoral, 1955	1,500- 6,000	...	71	42	6,727	29,300,000	36.0-40.0
		• Providencia, 1967	3,000- 7,720	4	34	13	1,021	12,004,000	38.0-40.0
		• Other	6,300- 9,900	1	...	4	27	534,239	...
	OCCIDENTAL	Bartra, 1979	6,500- 6,700	...	6	3	1,521	686,168	10.4
		Capahuari, 1972	11,900-12,900	...	...	4	72	340,005	25.0
		Capahuari Sur, 1973	11,800-12,700	2	14	4	64,684	51,755,155	36.4
		Carmen, 1975	9,800-10,600	...	...	1	...	45,058	34.2
		Dorissa, 1978	9,800-10,600	5	...	...	9,154	2,776,835	32.2
		Forestal, 1973	9,000- 9,900	3	1	3	11,349	9,542,286	26.7
		Huayuri N., 1980	10,000-10,800	...	1	...	66	12,008	18.4
		Huayuri Sur, 1977	10,000-10,800	3	...	8	5,256	4,554,330	36.7
		San Jacinto, 1978	7,200- 7,950	5	...	4	3,096	191,961	32.2
		Shiviyacu, 1973	9,100-10,100	2	9	3	14,313	20,420,610	21.5
		Shiviyacu N.E., 1977	9,100- 9,300	...	1	...	331	334,505	15.1
		Tambo, 1973	11,900-12,000	...	...	1	...	31,761	30.0
	PETROPERU$^{(e)}$	Agua Caliente, 1939	1,000- 1,500	...	20	10	300	13,849,000	42.0
		Capirona, 1972	9,800-12,000	4	...	...	700	749,000	26.4

*Norway's 84.09% share of production from unitized field only.

WORLDWIDE PRODUCTION		Name of field, discovery date	Depth, feet	No. of wells Flow	No. of wells Artificial lift	No. of wells Shut-in*	B/d average, first 6 mo. 1980	Cumulative, bbl, to July 1, 1980	°API gravity
		Corrientes, 1971	10,000-12,600	17	1	2	17,500	22,773,000	25.4
		Maguia, 1957	2,100- 2,400	3	15	2	1,000	8,968,000	37.5
		Pavayacu, 1972	9,600-11,300	3	3	6	4,300	3,549,000	24.3
		Talara-Lima area, 1869-1905	2,000- 9,000	152	2,130	...	33,000	868,765,000	31.8-34.7
		Yanayacu, 1974	11,400-13,600	1	...	9	50	223,000	18.8
		Total Peru		**222**	**2,545**	**208**	**196,553**	**1,147,653,921**	
PHILIPPINES	CITIES SERVICE	• South Nido, 1977	7,400	4	...	1	13,800	11,058,700	27.0
QATAR		• Bul Hanine, 1970	6,000	12	...	...	147,019	409,739,326	35.0
		Dukhan, 1940	6,500	86	...	15	230,675	1,886,474,476	41.1
		• Idd El Shargi, 1960	4,500- 8,250	15	...	...	19,162	170,624,774	35.0
		• Maydan-Mahzam, 1963	7,000	11	...	6	81,364	553,354,423	38.0
		Total Qatar		**124**	**...**	**21**	**478,420**	**3,020,192,999**	
SAUDI ARABIA	ARAMCO	Abqaiq, 1940	6,690	52	...	36	742,000	6,302,000,000	37.0
		Abu Hadriya, 1940	9,340	7	...	4	69,000	477,000,000	35.0
		• Abu Safah, 1963	6,600	18	...	...	136,000	478,000,000	30.0
		• Berri, 1964	8,300	30	...	40	531,000	1,929,000,000	32.0-34.0
		Dammam, 1938	4,800	10	...	9	23,000	577,000,000	35.0
		Fadhili, 1949	8,050	3	...	2	32,000	233,000,000	39.0
		Ghawar, 1948	6,920	332	...	299	5,452,000	20,990,000,000	34.0
		Harmaliyah, 1971	8,430	...	...	7	...	133,000,000	35.0
		Khurais, 1957	5,200	11	...	3	23,000	121,000,000	33.0
		Khursaniyah, 1956	6,560	22	...	3	201,000	728,000,000	31.0
		• Manifa, 1957	7,950	6	...	...	44,000	165,000,000	29.0
		• Marjan, 1967	6,800	6	...	9	59,000	90,000,000	33.0
		• Qatif, 1945	7,100	18	...	12	115,000	665,000,000	33.0-34.0
		• Safaniyah, 1951	5,100	188	...	57	1,512,000	5,335,000,000	27.0
		• Zuluf, 1965	5,800	30	...	7	561,000	604,000,000	32.0
		Total Saudi Arabia		**733**	**...**	**488**	**9,500,000**	**38,827,000,000**	
SHARJAH(e)		• Mubarek, 1972	12,650-12,990	3	1	...	10,000	60,685,000	37.0
SPAIN		• Amposta Marino North, 1970	10,000	1	...	5	650	50,080,603	37.0
		Ayoluengo, 1964	4,000	...	25	5	1,285	10,418,200	37.0
		• Casablanca, 1975	8,500	2	...	...	11,950	2,241,500	34.0
		• Castellon B, 1972	9,000	1	...	...	7,600	6,979,259	35.0
		• Dorado*, 1975	6,700	2	...	1	2,797	4,538,000	21.0
		Total Spain		**6**	**25**	**11**	**24,232**	**74,257,562**	
SYRIA	S.P.C. (e)	Alian, 1974	5,600	3	22	...	1,500	3,219,000	19.5
		Jibissah, 1968	2,000	13	40	...	9,800	12,135,000	20.5
		Karatchouk, 1958	6,000	7	60	...	31,700	87,630,000	21.0
		Rumailan, 1962	5,600	9	25	...	7,200	29,231,000	23.0
		Souedie, 1959	5,500	...	...	...	114,800	435,862,000	24.0
		Total Syria		**32**	**147**	**...**	**165,000**	**568,077,000**	
TRINIDAD	AMOCO	• Teak, 1972	15,191	15	30	NA	45,359	123,984,392	29.3
		• Samaan, 1972	11,780	20	18	NA	35,159	115,558,731	36.8
		• Poui, 1974	11,650	22	8	NA	40,623	74,387,204	34.0
	T.N.A.	• Soldado, 1955	11,000	99	151	NA	40,394	358,083,650	24.8
	TRINIDAD-TESORO	Palo Seco & Erin, 1926	12,718	25	415	NA	6,502	92,288,138	20.2
		Fyzabad, 1918	11,000	5	305	NA	3,704	160,889,838	21.5
		Coora/Quarry, 1936	14,000	6	183	NA	2,509	83,280,294	23.8
		• Galeota, 1972	6,304	3	27	NA	3,966	4,712,773	25.5
	TEXACO	• Brighton, 1908	7,500	9	57	NA	1,005	32,715,948	20.8
		Barrackpore, 1911	11,067	13	37	NA	1,649	26,669,593	18.3
		Guayaguayare, 1903	10,750	1	122	NA	3,124	81,532,504	33.7
		Palo Seco, 1926	10,500	10	151	NA	4,301	85,734,857	25.0
		Forrest Reserve, 1913	11,000	12	412	NA	6,697	245,238,981	23.0
	TRINTOC	Area IV & Guapo, 1913	10,626	20	60	NA	1,657	35,252,937	25.5
		Parrylands, 1913	10,626	20	47	NA	1,158	35,832,551	30.2
		Point Fortin C & W, 1907	10,626	32	94	NA	2,864	34,440,020	22.0
		Point Fortin E., 1929	11,000	3	50	NA	1,031	24,017,475	22.2
		Penal, 1936	11,067	27	72	NA	1,196	58,931,087	22.4
		Catshill, 1950	9,693	1	53	NA	526	21,886,581	38.3
		Other		50	664	NA	10,456	217,533,293	
		Total Trinidad		**393**	**2,956**	**NA**	**213,880**	**1,912,970,847**	
TUNISIA	ELF AQUITAINE	• Ashtart	10,500	10	2	2	43,570	95,330,412	29.0
		Douleb, 1968	9,186	...	13	2	1,796	14,552,440	40.0
		Tamesmida	...	...	2	...	198	1,402,434	...
	CFP	Sidi El Itayem, 1971	9,232	...	11	...	4,250	13,616,000	39.8
		Other	...	1	...	1	30	655,000	...

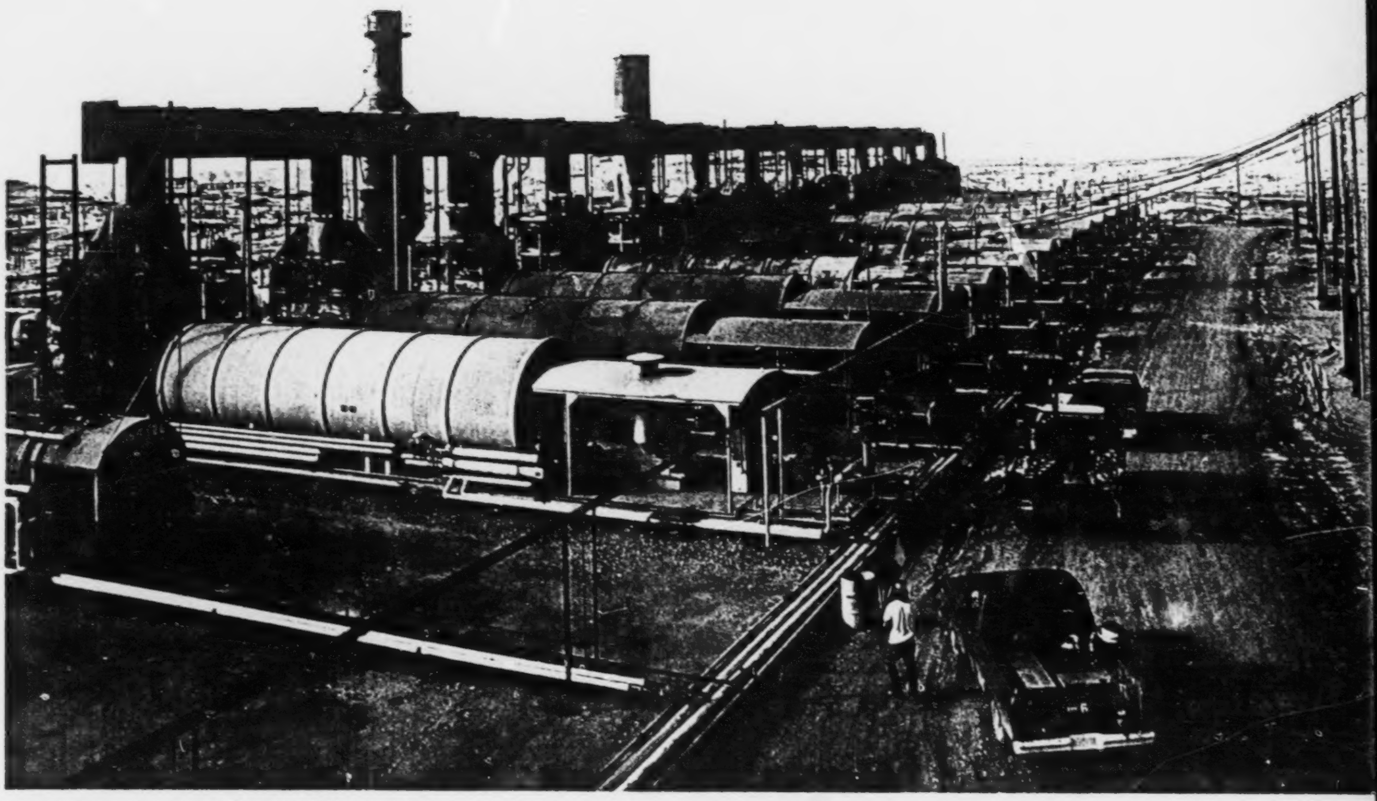
*Shut in 130 days to complete field work.

	WORLDWIDE PRODUCTION	Name of field, discovery date	Depth, feet	Flow	No. of wells Artificial lift	Shut-in*	B/d average, first 6 mo. 1980	Cumulative, bbl, to July 1, 1980	°API gravity
	ENI-TUNISIA (Sitep)(e)	El Borma, 1964	8,250- 8,900	45	1	22	45,000	290,550,000	42.0
	AGIP(e)	Chouech Es Saida, 1972	12,400	2	...	...	900	1,175,000	42.0
		Total Tunisia		**58**	**29**	**27**	**95,744**	**417,281,286**	
TURKEY	**TURKSE SHELL**	Barbes, 1971	7,200	...	7	3	2,212	10,149,503	29.7
		Beykan, 1964	5,200	...	17	3	3,673	48,201,724	33.2
		Kayakoy, 1960	6,000	...	11	2	2,465	13,395,808	38.2
		Kayakoy West, 1964	5,300	...	14	2	4,627	21,801,106	34.7
		Kurkan, 1963	4,500	...	14	3	3,388	39,452,209	31.4
		Malatepe, 1970		...	6	3	1,995	4,105,402	32.7
		Sahaban-Kurkan S., 1965	5,500	...	6	4	1,759	16,496,956	34.5
		Yatir-East, 1973	5,246	...	7	2	1,337	3,145,841	30.9
		Other		...	7	3	664	7,476,838	
	MOBIL	Selmo, 1964	6,000	...	14	1	5,358	51,271,000	34.0
		Other						2,339,728	
	TPAO	Raman, 1940	4,500		81	32	7,361	33,117,043	17.4
		Garzan-Germik, 1951	5,800- 6,500		29	35	1,291	32,391,199	23.6
		Magrip, 1961	5,700	...	14	15	636	13,465,214	18.3
		Raman West, 1961	4,300	...	100	17	2,194	27,700,889	11.7
		Silivanka-Beycayir	7,500- 7,700		13	7	965	5,368,023	23.1-26.2
		Adiyaman, 1971	5,750	...	12	8	904	6,297,565	24.3
		Saricak, Saricak South, 1973	5,250	...	8	13	739	4,763,268	31.0
		Yenikoy, 1973	6,350	...	12	6	1,538	4,953,810	31.4
		Osmancik North, Devecatal, 1974	3,750- 4,750	...	4	4	413	1,387,619	37.6
		Camurlu, Ikiztepe, 1976	4,750- 4,900		18	7	227	478,010	10.9
		Kayakoy South, Sivritepe, 1976	8,600- 8,200	...	4	2	685	1,530,057	31.7
		Sahaban South, 1978	5,450	...	5	...	916	567,014	33.5
		Other (6 fields), 1977	4,900-10,500		7	7	235	1,610,831	18.0-35.5
	ERSAN (e)	Kahta, 1958	3,500	...	4	...	200	4,046,000	11.5
		Total Turkey		...	**414**	**179**	**45,782**	**355,512,657**	
UNITED KINGDOM	**AMOCO**	• Montrose, 1969	8,200	14	1	1	26,370	31,039,085	40.5
	BGC	Wytch Farm, 1974	2,909	...	7	2	1,800	690,990	37.0
		Sherwood, 1977	5,115	1	...	2	1,550	277,568	41.0
		Other		...	...	5	...	146,211	
	BNOC GROUP	• Thistle, 1973	9,000	15	9	...	106,077	75,289,204	33.4
	BP	• Forties, 1970	8,000	50	...	...	523,000	696,543,433	37.0
		East Midland, 1939	3,500	...	78	145	1,561	23,415,188	40.0
	CHEVRON	• Ninian, 1974	10,000	25		...	207,700	95,550,900	35.0
	CONOCO GROUP	• Statfiord, 1974	7,000	3	...	1	*10,262	*2,177,124	39.0
	HAMILTON BROS.	• Argyll, 1971	9,000- 9,400	5	...	...	16,623	32,721,052	38.0
	MOBIL	• Beryl, 1972	10,500	18	...	4	108,900	100,000,000	36.0
	OCCIDENTAL	• Claymore, 1974	8,100	1	18	1	84,359	68,677,373	29.5
		• Piper, 1973	8,100	12	2	7	222,385	296,589,729	37.2
	SHELL U.K.	• Auk, 1970		6	...	3	13,117	45,149,789	37.0
		• Brent, 1971		9	...	9	137,608	129,503,379	38.0
		• Cormorant South, 1972		3	...	1	19,586	3,872,605	36.0
		• Dunlin A, 1973		7	...	...	82,317	45,067,113	33.0
	UNION OIL	• Heather, 1973	10,800	2	7	...	12,488	9,556,305	36.0
		Total United Kingdom		**168**	**122**	**180**	**1,575,703**	**1,656,267,048**	

*U.K.'s 15.91% of production for unitized field only.

VENEZUELA	**PDV–ANZOATEGUI**	Boca, 1951	9,500	1	...	27	2,123	73,321,318	33.0
		Caico Seco, 1946	6,500- 7,300	22	11	...	5,417	57,369,794	37.3
		Chimire, 1948-52	7,000- 7,200	7	9	...	7,024	356,968,287	35.5
		Dacion, 1957	6,700	4	70	7	10,926	197,921,847	20.9
		Elias, 1954	5,000- 6,470	30	37	4	10,431	100,196,856	37.1
		El Roble, 1939	3,500-11,500	13	1	...	563	38,574,365	51.7
		Guico, 1944	4,500- 7,000	1	21	3	1,414	86,012,521	25.2
		Guara, 1946	5,000-10,000	16	44	32	12,940	531,657,605	26.3
		Inca, 1948	7,250	7	9	...	3,756	26,681,945	31.7
		Leona, 1938	2,[illegible]-12,800	8	71	46	12,850	165,093,969	22.0
		La Ceiba, 1946	9,450	15	7	...	4,234	38,693,255	43.1
		Mata, 1954	8,970-10,516	27	28	[illegible]	9,547	482,244,043	33.7
		Merey, 1937	5,400- 5,700	1	1	195	13,628	213,974,303	11.1
		Nipa, 1945	6,000- 8,500	36	74	6	16,434	472,254,306	30.2
		Oscurote-Norte, 1952	9,513	1	4	9	1,486	116,556,743	20.9
		Oficina, 1937	5,900	40	74	148	37,147	722,168,337	21.4
		Soto, 1950	9,500	18	8	...	3,793	170,948,710	39.5
		Sta. Ana, 1936	8,500	58	3	...	4,841	51,175,386	42.7
		San Joaquin, 1939	6,550	35	...	...	1,443	41,307,853	53.9
		Sta. Rosa, 1941	8,500	115	22	...	16,431	262,741,615	48.6
		Yopales, 1937	4,600	25	42	56	14,885	121,925,964	21.9
		Zanjas, 1958	13,270	7	1	...	2,816	29,085,245	33.9
		Zapatos, 1955	11,500	22	6	...	7,234	130,366,798	38.0
		Zorro, 1953	11,100	5	2	...	1,790	64,896,937	26.2
		Zulus, 1957	12,710	5	3	...	2,527	19,810,536	38.1

WORLDWIDE PRODUCTION	Name of field, discovery date	Depth, feet	No. of wells Flow	No. of wells Artificial lift	No. of wells Shut-in*	b/d average, first 6 mo. 1980	Cumulative, bbl, to July 1, 1980	°API gravity
	Zumo, 1954	9,200	3	7	12	3,945	75,821,178	19.6
	La Ceibita, 1963	9,878	18	3	...	2,768	71,933,270	40.5
	Adjuntas, 1957	5,000	1	...	27	1,783	8,145,120	15.8
	Other		149	77	69	50,582	281,231,158	
MONAGAS	Acema, 1960	12,530-13,750	50	10	...	51,114	42,786,153	23.7
	Aguasay, 1955	8,100-13,400	13	5	...	4,791	102,455,025	43.4
	Jobo, 1956	3,600- 4,000	3	13	117	41,505	152,705,367	12.1
	Morichal, 1958	3,312	...	...	50	9,392	150,329,157	10.1
	Orocual, 1953	2,954	11	...	4	2,109	20,999,475	26.6
	Oritupano, 1950	7,657	18	2	44	21,157	149,271,940	23.3
	Pirital, 1958	450- 1,100	...	...	53	2,079	23,243,580	17.3
	Quiriquire, 1928	7,000- 7,200	...	...	213	7,572	746,668,797	16.3
	Sta. Barbara, 1941	5,020- 6,500	11	34	16	2,129	163,098,618	29.3
	Tacat, 1953	1,820- 3,670	...	...	51	1,911	41,257,441	17.3
	Temblador, 1936	3,500- 4,500	1	14	1	1,890	105,273,067	19.8
	Other		47	44	52	27,581	625,382,529	18.8
ZULIA	Barua, 1928	3,000	3	...	1	1,488	16,540,983	21.1
	Boscan, 1946	5,500- 7,500	...	...	241	53,910	581,163,596	10.3
	Bachaquero, 1930	3,440	39	338	1,287	311,020	5,593,181,437	20.8
	Cruces-Manueles, 1916	3,000- 8,000	3	...	26	3,070	170,774,968	30.1
	Cabimas, 1917	2,200	62	230	326	47,638	1,429,568,817	23.6
	Centro, 1959	9,600-11,000	54	77	2	97,258	587,735,535	35.5
	La Concepcion, 1953	3,148- 8,000	3	...	48	4,278	125,502,396	35.2
	La Paz, 1925	4,268- 8,000	14	28	26	16,080	815,367,202	31.1
	Lago, 1959	11,450	30	4	34	23,509	183,598,206	31.0
	Lagunillas, 1926	3,000	492	1,074	1,719	511,116	9,611,391,288	22.5
	Lama, 1937	8,320	122	74	...	140,599	2,200,362,203	32.8
	Lamar, 1958	13,000	42	46	...	96,719	919,026,060	34.1
	Mara, 1945	5,240	6	16	2	3,351	392,283,653	28.4
	Mene Grande, 1914	4,130	2	...	292	12,078	607,684,717	18.9
	Motatan, 1952		13	6	...	11,822	32,731,493	21.5
	Sibucana, 1948	13,450	1	...	...	814	41,751,616	33.8
	Tia Juana, 1928	3,000	117	343	1,531	225,810	3,353,583,988	17.7
	Urdaneta, 1970	10,000	8	5	...	11,727	47,479,304	24.5
	West-Tarra, 1942	4,250- 5,500	4	...	9	935	66,898,566	39.2
	Other		32	47	12	58,387	470,807,229	24.0
BARINAS	Hato, 1965	9,550	2	...	11	4,051	35,689,451	26.6
	Maporal, 1957	10,950	...	...	4	714	12,222,238	28.0
	Paez, 1963		2		31	9,355	34,292,962	20.3
	Silvan, 1949	10,860	2	...	9	2,375	40,685,876	29.1
	Silvestre, 1948	8,860	1	...	28	6,050	123,112,430	24.3
	Sinco, 1953	8,500- 9,100	...	...	51	12,499	230,796,483	23.4
	Other		1	...	3	446	1,006,421	25.4
FALCON	All fields		...	...	29	524	107,394,345	25.1
GUARICO	Budare, 1958	4,523	15	7	4	7,238	56,333,528	31.6
	Las Mercedes, 1942	4,500	3	28	1	1,385	131,346,960	29.9
	Ruiz, 1949	4,500	...	15	1	573	32,250,948	32.4
	Other		4	17	39	13,298	355,396,986	32.7
AMACURO	All fields		9	...	9	336	49,230,963	17.0
	Total Venezuela		**1,930**	**3,112**	**7,019**	**2,128,443**	**35,789,743,261**	
WEST GERMANY **BAVARIA**	Arlesried, 1964	4,900	...	...	...	1,332	10,651,184	47.0
	Moenchsrot, 1958	4,800	...	99	...	570	10,505,074	36.0
	Other		...	...	...	3,626	26,432,250	...
EMSLAND	Emlichheim, 1964	2,600	...	...	...	3,044	35,510,281	25.0
	Georgsdorf, 1944	1,800- 2,600	...	...	...	7,064	83,464,348	24.0-29.0
	Meppen-Schwefingen, 1960	4,000	...	1,028	...	1,122	9,350,269	28.0-30.0
	Ruehlermoor, 1949	2,000- 4,700	...	...	...	10,359	112,162,136	28.0-30.0
	Ruehlertwist, 1949	2,350- 2,900	...	...	...	2,085	26,376,731	25.0
	Scheerhorn, 1949	3,550- 3,750	...	...	...	4,043	41,964,401	30.0
	Other		...	...	...	1,902	27,056,431	...
SCHLESWIG-HOLSTEIN	Ploen-Ost, 1959	6,400	...	...	...	3,313	43,829,696	36.0
	Preetz, 1962	8,350- 8,550	...	198	...	594	9,665,197	29.0
	Reitbrook, 1937	1,450- 2,100	...	...	...	1,202	35,173,346	29.0
	Other		...	...	...	2,755	46,070,184	...
HANOVER	Eldingen, 1949	4,750	...	...	...	1,168	16,779,738	35.0
	Hankensbuettel, 1954	4,450- 5,100	...	...	...	5,780	79,431,185	33.0
	Hardesse, 1958	6,050	...	...	...	1,308	7,140,876	34.0
	Hohne, 1958	4,300- 5,900	...	...	...	1,175	36,413,446	33.0-34.0
	Knesebeck, 1958	5,100- 5,200	...	...	...	1,572	14,485,949	36.0
	Leiferde, 1956	2,600	...	...	...	915	18,525,257	34.0
	Lueben, 1955	3,950	...	...	...	975	9,295,153	35.0-38.0
	Meckelfeld, 1938	1,000- 1,300	...	850	...	729	12,973,960	24.0-32.0
	Oelheim-Sued, 1968	7,650	...	...	...	980	5,339,968	33.0
	Orrel-Wesendorf-Nord, 1954	4,450	...	...	...	1,188	9,999,784	...
	Ruehme, 1954	1,950	...	...	...	915	7,682,274	...
	Sinstorf, 1960	6,750- 7,150	...	...	...	1,318	16,362,082	...
	Suderbruch, 1949	3,750- 7,550	...	...	...	862	20,907,215	19.0-38.0
	Vorhop, 1952	2,950- 6,900	...	...	...	994	13,769,774	36.0
	Other		...	...	...	4,007	214,949,129	...



GETTY OIL CO.'S STEAM GENERATORS HELP COAX HEAVY CRUDE FROM KERN RIVER FIELD IN CALIFORNIA.

	WORLDWIDE PRODUCTION	Name of field, discovery date	Depth, feet	Flow	No. of wells Artificial lift	Shut-in*	B/d average, first 6 mo. 1980	Cumulative, bbl, to July 1, 1980	°API gravity
	UPPER RHINE VALLEY	Landau, 1955	3,950-4,800	...	98	...	1,600	21,511,934	36.0
		Other		...	...	...	214	11,591,763	...
	WESER-EMS	Barenburg, 1953	2,300- 3,300	...	...	...	2,643	29,801,269	29.0
		Bolkstedt, 1954	3,750	...	...	...	1,388	17,014,952	...
		Bramberge, 1958	2,560- 3,300	...	...	...	9,484	76,577,233	29.0
		Duste, 1954	2,600- 4,250	...	684	...	1,984	36,447,686	...
		Gross Lessen, 1969	3,300	...	...	..	2,680	17,449,053	...
		Sued-Oldenburg, 1950	1,700- 6,500	...	...	...	1,340	35,314,785	...
		Voigtei, 1953	1,150- 1,500	...	...	...	1,032	21,852,592	31.0-34.0
		Wehrbleck, 1957	3,400	...	...	...	1,161	13,435,714	33.0
		Other		...	...	...	2,769	26,944,353	...
		Total West Germany		...	**2,957**	...	**93,192**	**1,310,208,652**	
ZAIRE	GULF OIL	• GCO, 1970	7,000- 9,000	6	...	1	1,605	4,294,286	29.0
		• Mibale, 1973	5,000- 6,000	...	5	...	17,843	30,540,188	30.0
		• Mwambe, 1979	6,150	...	2	...	2,062	154,681	30.4
		Total Zaire		**6**	**7**	**1**	**21,510**	**34,989,155**	

U.S.S.R.

Field, year discovered	No. wells	1980 prod. (million bbl)	Cum prod. 1-1-81 (million bbl)	Pay, ft
Arlan, 1955	3,000	90	2,190	Carb., 4,429
Baku Archipelago, 1963	180	35	335	Pliocene, 8,773
Fedorovskoye, 1971	850	200	600	L. Cret., 5900
Kholmogorskoye, 1973	250	30	90	L. Cretaceous
Kotur-Tepe, 1956	350	50	980	Pliocene 8,793
Mamontovo, 1965	700	125	775	Cret'ous, 6,300
Megion, 1961	230	25	360	Ju., Cret., 8,235
Neftianye Kamni, 1949	1,200	25	975	Pliocene, 5,406
Novo-Elkhovskoye, 1951	1,500	55	1,555	Paleozoic, 5,577

Field, year discovered	No. wells	1980 prod. (million bbl)	Cum prod. 1-1-81 (million bbl)	Pay, ft
Pravdinsk, 1964	500	60	540	L. Cret., 9,580
Romashkino, 1948	8,000	500	11,750	Devonian, 5,791
Samotlor, 1965	3,300	1,100	6,690	L. Cret., 7,316
Sovetskoye, 1962	300	50	600	Cret., 11,130
Usa, 1963	350	80	305	Paleozoic, 6,510
Ust-Balyk, 1961	1,000	85	1,120	L. Cret., 8,845
Uzen, 1961	2,000	90	1,250	Jurassic, 2,667
Zapadno-Surgut, 1962	250	30	390	Cret., 7,628

	1,000 bbl			
State Field Disc. date	1980 prod.	Cum. prod. 1-1-81	Est. rem. reserves	Est. No. wells
ALABAMA				
Citronelle, 1955	2,472	132,108	22,915	446
ALASKA				
Granite Point, 1965	4,378	83,535	35,400	30
Kuparuk, 1971	0	0	260,000	21
McArthur River, 1965	20,958	439,883	84,000	71
Middle Ground, Shoal, 1963	4,931	129,549	30,000	40
Prudhoe Bay, 1968	597,452	1,592,938	7,837,000	233
Swanson River, 1957	3,696	189,580	24,300	41
ARKANSAS				
Smackover, 1922	3,444	528,306	11,694	2,160
CALIFORNIA				
San Joaquin Valley				
Belridge South, 1911	21,689	283,147	423,000	3,715
Buena Vista, 1910	2,354	634,261	19,600	1,159
Coalinga, 1938	8,018	674,352	49,000	2,076
Coalinga Nose, 1952	2,241	449,581	21,800	72
Coles Levee North, 1938	1,626	154,355	12,400	108
Cuyama South, 1949	482	213,628	3,218	136
Cyrmic, 1916	3,881	151,730	35,000	805
Edison, 1928	1,687	122,201	8,300	765
Elk Hills, 1919	59,089	510,560	906,000	1,065
Fruitvale, 1928	977	107,877	11,000	390
Greeley, 1936	324	110,614	2,000	36
Kern Front, 1915	2,504	154,516	26,000	1,060
Kern River, 1899	36,873	832,008	800,000	5,029
Kettleman North Dome, 1931	340	454,642	2,700	67
Lost Hills, 1910	3,500	134,174	28,500	1,371
McKittrick, 1887	4,623	235,188	34,500	1,178
Midway/Sunset, 1912	41,406	1,464,312	400,000	7,520
Mount Poso, 1926	7,860	201,589	40,000	545
Rio Bravo, 1944	314	113,840	700	12
Tule Elk*, 1973	102	1,982	129,898	-

*Merged into Elk Hills in May 1980. Reserves and production now transferred to Elk Hills.

Coastal Area				
Cat Canyon East & West, 1944	5,499	209,761	44,500	752
Dos Cuadras, 1969	8,044	166,538	55,000	147
Elwood, 1928	108	103,656	540	9
Orcutt, 1902	1,216	157,212	18,900	183
Rincon, 1927	1,800	137,629	18,000	299
San Ardo, 1947	10,844	347,924	153,000	816
Santa Ynez**,				
Santa Maria Valley, 1934	3,243	178,209	31,000	206
South Mountain, 1916	1,183	138,709	12,000	404
Ventura, 1916	7,152	849,073	61,000	654

**3 undeveloped fields in unit. Hondo field (to be developed first), 94 million.

Los Angeles Basin				
Beverly Hills, 1967	3,014	100,694	27,000	107
Brea Olinda, 1884	2,945	363,562	22,000	739
Coyote East, 1911	802	103,369	7,000	136
Coyote West, 1909	1,237	242,037	9,000	137
Dominguez, 1923	773	263,817	9,000	119
Huntington Beach, 1920	10,368	1,000,929	78,000	981
Inglewood, 1924	3,783	318,149	32,000	444
Long Beach, 1921	3,363	896,035	37,600	504
Montebello, 1927	516	188,129	4,900	143
Richfield, 1919	1,772	175,512	16,000	236
San Pedro Offshore Area***				
Santa Fe Springs, 1919	767	605,253	10,000	173
Seal Beach, 1924	955	194,279	9,100	164
Torrance, 1922	1,884	196,220	18,000	347
Wilmington, 1932	41,316	1,994,087	406,700	2,153

*** Beta field, 200-300 million reserves, to be developed.

	1,000 bbl			
State Field Disc. date	1980 prod.	Cum. prod. 1-1-81	Est. rem. reserves	Est. No. wells
COLORADO				
Rangely, 1933	17,714	633,876	90,000	457
FLORIDA				
Jay, 1970	32,856	273,191	101,809	104
ILLINOIS				
Clay City, 1938	2,844	327,533	11,000	2,060
Lawrence, 1906	1,980	24,285	18,788	2,700
Louden, 1938	1,584	374,942	9,853	1,200
Main, 1906	1,428	13,508	5,074	3,100
New Harmony, 1939	1,548	143,327	6,098	1,000
Salem, 1938	2,172	371,128	10,000	1,300
KANSAS				
Bemis-Shutts, 1928	1,652	228,744	8,271	905
Chase-Silica, 1931	1,028	256,764	8,242	1,044
Eldorado, 1917	1,182	286,396	6,000	823
Hall Gurney, 1931	1,280	135,655	8,000	1,180
Trapp 1937	1,414	215,062	7,962	987
LOUISIANA				
Onshore South				
Bay de Chene, 1941	1,176	91,961	23,039	64
Bay St. Elaine, 1928	1,428	160,319	29,681	56
Bayou Sale, 1941	1,008	154,987	10,013	32
Black Bay, West, 1953	4,140	122,840	32,160	106
Caillou Island, 1930	6,480	577,296	102,704	206
Cote Blanche Bay, West, 1940	2,280	175,560	54,440	201
Garden Island Bay, 1934	3,492	206,803	48,197	216
Golden Meadow, 1938	1,600	128,025	11,975	240
Grand Bay, 1938	1,428	164,884	10,116	103
Lafitte, 1935	2,940	238,383	26,617	242
Lake Barre, 1929	2,712	193,694	31,306	74
Lake Pelto, 1929	1,068	112,366	22,634	40
Lake Washington 1931	3,024	223,289	36,711	112
Leeville, 1931	1,100	137,494	12,561	55
Paradis, 1939	1,224	119,780	15,220	44
Quarantine Bay, 1937	1,920	162,893	12,107	101
Timbalier Bay, Onshore, 1938	3,876	264,554	36,124	145
Venice, 1937	1,848	173,756	16,244	85
Weeks Island, 1945	1,560	219,841	30,159	54
West Bay, 1940	5,136	209,440	35,000	178
North				
Caddo-Pine Island, 1905	2,772	326,473	16,229	8,026
Delhi, 1944	4,668	201,860	48,140	101
Haynesville, 1941	1,284	180,007	10,000	220
OFFSHORE				
Bay Marchand Blk. 2, 1949	14,444	536,139	114,511	148
Grand Island Blk. 16, 1948	2,225	247,491	103,188	57
South Pass Blk. 24, 1950	7,050	418,317	60,000	431
(Include onshore)				
South Pass Blk. 27, 1954	2,928	296,044	91,435	235
Eugene Island Blk. 330, 1971	16,171	184,884	140,116	187
Grand Isle Blk. 43, 1956	7,006	224,053	133,739	220
Main Pass Blk. 41, 1957	4,290	183,702	96,502	111
Main Pass Blk. 306, 1969	3,073	57,703	92,297	98
Miss. Canyon				

	1,000 bbl			
State Field Disc. date	**1980 prod.**	**Cum. prod. 1-1-81**	**Est. rem. reserves**	**Est. No. wells**
Blk. 194	5,023	5,594	100,000	11
Ship Shoal Blk. 204, 1968	3,581	51,994	53,006	58
Ship Shoal Blk. 207, 1967	3,318	73,637	53,142	61
Ship Shoal Blk. 208, 1962	4,165	128,766	96,677	93
South Pass Blk. 61, 1968	10,409	70,000	105,000	123
South Pass Blk. 62, 1965	4,892	80,841	107,129	81
South Pass Blk. 65, 1969	3,526	79,385	110,742	56
South Timbalien Blk. 21, 1965	5,146	191,196	69,240	91
South Timbalien Blk. 135, 1956	2,123	129,156	35,844	59
West Delta Blk. 30, 1949	8,560	380,884	70,217	176
West Delta Blk. 73, 1962	3,257	162,903	112,077	85
West Delta Blk. 79,	6,360	74,346	113,302	80

MISSISSIPPI

Baxterville, 1944	6,732	202,801	32,199	282
Heidelberg, 1944	4,392	141,649	23,351	271

MONTANA

Bell Creek, 1967	4,928	113,117	40,000	160
Cut Bank, 1926	1,392	150,000	46,000	923
Pine 1951	2,022	92,000	9,000	100

NEW MEXICO

Denton,1949	992	132,404	7598	125
Empire-Abo,1957	9,413	194,564	75,436	185
Eunice Monument,1929	3,684	149,812	25,216	1,050
Hobbs, 1928	4,284	247,434	40,000	440
Maljamar,1926	2,928	127,431	22,569	780
Vacuum, 1929	12,048	346,595	59,000	1,100

NORTH DAKOTA

Beaver Lodge, 1951	3,026	96,911	25,138	153
Tioga 1952	772	61,193	24,043	218
Billings Nose				
Four Eyes, Mystery Creek, Big Stick, TR Ranch),1978	2,410	4,820	95,180	67
Little Knife, 1977	3,960	11,877	88,123	107
Mondak, 1976	1.579	6.315	93,685	115

OKLAHOMA

Burbank, 1920	2,398	520,223	22,180	1,032
Eola Robberson, 1947	1,837	122,606	17,369	546
Fitts, 1933	3,902	167,921	20,310	632
Golden Trend, 1945	3,988	423,007	41,006	1,081
Healdton, 1913	2,458	324,552	25,336	1,396
Hewitt, 1919	3,162	251,146	35,074	1,251
Oklahoma City, 1928	7,096	737,927	10,841	213
Postle, 1960	2,758	92,789	27,044	331
Sho-Vel-Tum, 1914	21,472	22,615	165,399	8,499
Sooner Trend, 1965	7,470	236,088	59,000	4,005

TEXAS

District 2				
Greta, 1933	2,600	138,237	21,803	168
Lake Pasture,	3,084	68,311	31,689	199
Tom O'Connor,1934	23,064	622,443	177,557	871
West Ranch	9,800	347,529	30,471	480
District 3				
Anahuac, 1935	2,676	271,171	28,829	160
Conroe, 1931	19,044	667,991	82,009	404
Hastings, 1934	21,000	655,364	114,636	331
Magnet Withers, 1936	1,992	94,809	10,191	190
Oyster Bayou, 1941	3,420	129,065	28,967	43
Thompson,1931	8,076	434,617	65,383	322
Tombail,1933	1,104	114,938	15,062	194
Webster, 1937	8,388	527,488	122,512	195
District 5				
Van,1928	6,768	489,066	60,934	453
District 6				
East Texas,1930	60,204	4,624,012	1,375,988	11,807
Fairway,1960	4,332	164,458	45,542	91
Hawkins,1940	23,148	726,074	245,926	399
Neches, 1953	4,020	85,318	24,682	142
Quitman,1948	2,352	101,389	13,611	236
District 8				
Andector,1946	4,200	158,551	26,449	113
Block 31,1945	6,540	180,113	39,887	201
Cowden, N.,1930	15,120	371,001	78,999	1,152
Cowden, S.,Foster, &Johnson, 1932	14,808	409,871	75,129	1,550
Dollarhide, 1945	2,916	173,981	26,019	158
Dune, 1938	4,272	155,375	24,625	1,004
Fullerton, 1942	7,320	290,143	49,857	647
Goldsmith, 1934	12,576	664,461	70,539	2,459
Howard Glasscock, 1925	6,780	353,707	53,220	2,228
Iatan E., 1926	4,320	111,555	28,445	1,091
Jordan, 1937	2,052	119,224	12,000	371
Keystone, 1930	3,288	292,187	27,712	866
McElroy, 1926	12,264	390,215	119,785	2,385
Means, 1934	5,568	183,065	40,000	415
Midland Farms, 1944	3,732	205,066	34,934	341
Sand Hills, 1931	4,284	216,372	30,000	1,436
TXL, 1944	1,716	250,290	14,440	465
Waddell, 1927	1,404	92,899	12,111	284
Ward Estes N, 1927	3,072	333,951	31,049	1,952
Yates, 1926	46,464	815,617	1,134,383	622
District 8-A				
Anton-Irish, 1944	9,420	133,122	66,873	231
Cogdell Area, 1949	4,812	249,261	60,739	135
Diamond M, 1948	3,768	219,414	36,946	467
Kelly-Snyder, 1948	32,832	1,075,610	274,390	745
Levelland, 1938	19,620	336,460	88,540	2,105
Prentice, 1951	4,152	123,651	36,000	314
Salt Creek, 1950	8,904	189,342	70,658	120
Seminole, 1936	29,220	376,171	95,000	466
Slaughter, 1936	32,928	831,017	168,983	2,885
Spraberry Trend, 1951	16,488	485,251	74,700	5,324
Wasson, 1936	70,416	1,370,366	259,634	2,007
Welch, 1942	3,756	115,758	32,242	590
District 10				
Panhandle, 1918	9,408	1,344,698	89,000	10,249

UTAH

Altamont-Bluebell, 1955	8,062	96,911	266,812	308
Greater Aneth, 1956	7,066	306,782	55,648	506
Greater Red Wash, 1951	2,904	110,526	26,461	207
Pineview	3,254	17,791	127,792	30

WYOMING

Brady, 1960	3,972	28,445	74,694	16
Elk Basin (Wyo.-Mon.) 1915	5,436	488,164	55,044	263
Garland	3,060	132,938	14,822	239
Grass Creek, 1914	3,804	163,254	30,000	267
Hamilton Dome, 1918	3,528	243,099	20,000	281
Hartzog Draw, 1976	3,336	28,990	71,010	175
Hilight, 1969	1,824	68,247	63,127	102
Lance Creek, 1918	276	106,608	700	51
Lost Soldier, 1916	4,848	168,179	25,000	53
Oregon Basin, 1912	11,532	311,789	72,638	438
Painter Reservoir, 1979	...	...	100,000	11
Salt Creek, 1906	5,832	584,519	34,997	1,093
Whitney Canyon-Carter Creek	...	...	100,000	...

All data but reserves were furnished by Petroleum Information, Denver, for: Colorado, Illinois, Kansas, Montana, North Dakota, Oklahoma, Utah, and Wyoming. All other information gathered from state and federal agencies. Reserves figures are from Oil & Gas Journal.

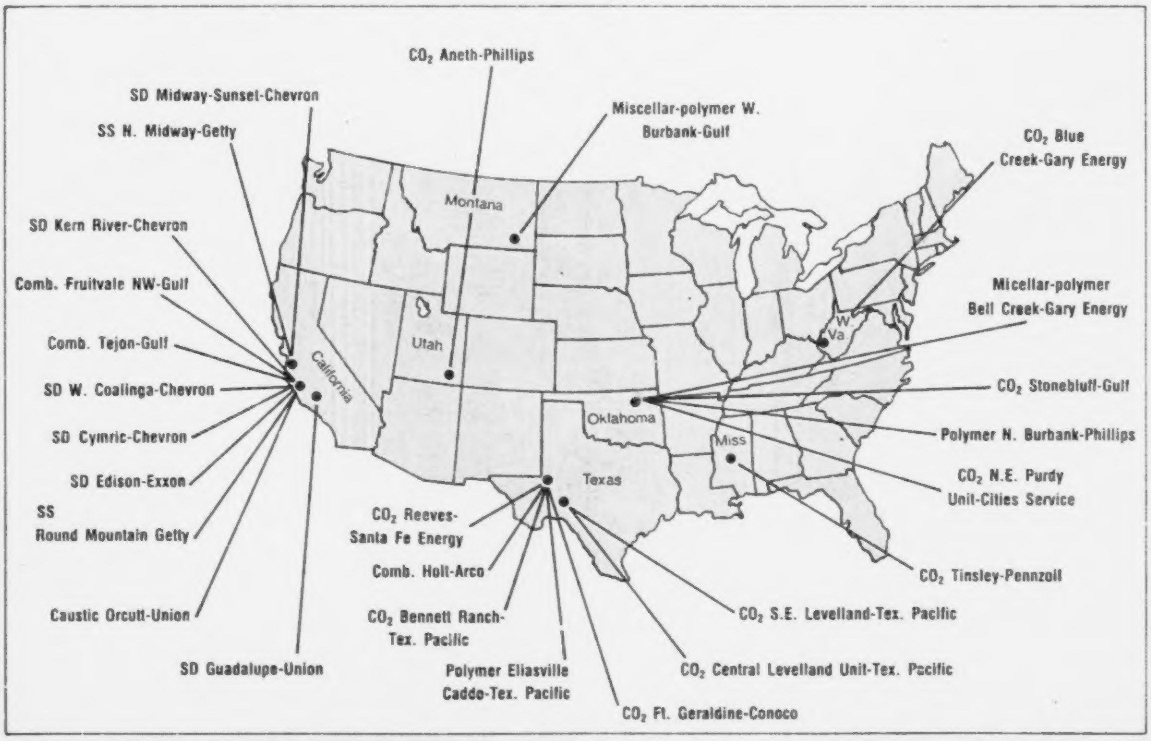
1980 Worldwide Crude Oil Production* (1,000 B/D)

Country	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year-to-date
WESTERN HEMISPHERE													
Argentina	486	483	483	472	482	480	484	484	493	500	498	500	487
Bolivia	30	30	30	30	30	30	30	30	30	30	30	30	30
Brazil	181	181	181	186	186	186	190	198	170	169	185	172	182
Canada	1,482	1,467	1,488	1,360	1,444	1,497	1,477	1,448	1,362	1,250	1,365	1,300	1,412
Chile	26	26	26	26	30	30	30	30	30	30	30	30	29
Colombia	125	125	125	125	125	125	125	125	125	125	125	125	125
Ecuador	232	230	188	250	230	230	220	240	180	230	225	210	222
Guatemala	2	3	5	5	5	5	5	5	5	5	5	5	5
Mexico	1,721	1,723	1,829	1,887	1,910	1,906	2,014	1,999	2,124	2,182	1,901	2,027	1,936
Peru	205	187	190	190	190	190	190	190	190	190	190	195	191
Trinidad	212	214	215	215	215	215	218	213	210	210	210	190	211
United States	8,648	8,696	8,712	8,688	8,640	8,355	8,555	8,535	8,510	8,510	8,437	8,544	8,569
Venezuela	2,280	2,205	1,988	2,051	2,046	2,059	2,170	2,210	2,190	2,227	2,230	2,350	2,167
Total	**15,630**	**15,570**	**15,460**	**15,485**	**15,533**	**15,308**	**15,708**	**15,707**	**15,619**	**15,658**	**15,431**	**15,678**	**15,567**
WESTERN EUROPE													
Austria	29	29	29	29	29	29	29	29	29	29	29	29	29
Denmark	7	7	6	7	6	6	6	6	6	7	8	6	6
France	25	26	26	26	26	26	26	26	26	26	26	26	26
West Germany	90	90	92	92	91	91	90	89	89	88	88	89	90
Italy	38	38	38	38	38	38	40	40	40	40	40	40	39
Netherlands	25	25	24	24	26	26	26	25	25	25	25	25	25
Norway	578	620	561	540	558	553	267	546	501	529	537	553	528
Spain	30	30	30	30	30	30	30	30	30	30	30	30	30
United Kingdom	1,606	1,657	1,683	1,550	1,624	1,595	1,585	1,533	1,539	1,572	1,731	1,759	1,619
Yugoslavia	80	80	80	80	80	80	80	80	80	80	80	80	80
Total	**2,508**	**2,602**	**2,569**	**2,416**	**2,508**	**2,474**	**2,179**	**2,404**	**2,365**	**2,426**	**2,594**	**2,637**	**2,473**
MIDDLE EAST													
Abu Dhabi	1,390	1,373	1,335	1,348	1,408	1,398	1,360	1,302	1,298	1,308	1,337	1,338	1,350
Bahrain	51	50	50	50	50	50	50	45	45	46	46	46	48
Dubai	337	352	350	347	345	339	341	354	364	354	349	359	349

(continued)

Largest planned projects

2


CO_2 Aneth-Phillips
SD Midway-Sunset-Chevron
SS N. Midway-Getty
Miscellar-polymer W. Burbank-Gulf
CO_2 Blue Creek-Gary Energy
SD Kern River-Chevron
Comb. Fruitvale NW-Gulf
Micellar-polymer Bell Creek-Gary Energy
Comb. Tejon-Gulf
SD W. Coalinga-Chevron
CO_2 Stonebluff-Gulf
SD Cymric-Chevron
Polymer N. Burbank-Phillips
SD Edison-Exxon
CO_2 N.E. Purdy Unit-Cities Service
SS Round Mountain Getty
CO_2 Reeves-Santa Fe Energy
Comb. Holt-Arco
CO_2 Tinsley-Pennzoil
Caustic Orcutt-Union
CO_2 Bennett Ranch-Tex. Pacific
CO_2 S.E. Levelland-Tex. Pacific
SD Guadalupe-Union
Polymer Eliasville Caddo-Tex. Pacific
CO_2 Central Levelland Unit-Tex. Pacific
CO_2 Ft. Geraldine-Conoco
Montana
Utah
California
Oklahoma
Texas
Miss
W. Va.

1980 Worldwide Crude Oil Production (continued)

Country	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year-to-date
Iran	2,300	2,500	2,000	1,800	1,300	1,500	1,500	1,300	1,100	450	700	1,200	1,467
Iraq	3,500	3,500	3,500	3,500	3,500	3,500	3,400	3,400	2,900	150	300	550	2,638
Israel	1	1	1	1	1	1	1	1	1	1	1	1	1
Kuwait	1,850	2,037	1,771	1,286	1,235	1,318	1,114	1,147	1,050	1,100	1,200	1,500	1,382
Neutral Zone	584	567	580	542	553	546	534	521	479	512	531	535	540
Oman	283	276	278	280	283	288	281	286	274	287	288	290	283
Qatar	502	457	498	498	477	441	460	468	461	440	475	483	472
Saudi Arabia	9,500	9,500	9,500	9,500	9,500	9,500	9,500	9,500	9,500	9,920	10,130	10,000	9,630
Sharjah	13	12	12	11	9	9	9	9	9	9	9	9	10
Syria	165	165	165	165	165	165	165	165	165	165	165	165	165
Turkey	42	42	42	42	42	42	45	45	45	45	45	45	44
Total	**20,518**	**20,832**	**20,082**	**19,370**	**18,868**	**19,097**	**18,760**	**18,543**	**17,691**	**14,787**	**15,576**	**16,521**	**18,379**
ASIA-PACIFIC													
Afghanistan	—	—	—	—	—	—	—	—	—	—	—	—	—
Australia	414	350	361	423	320	309	436	402	388	431	265	448	379
Burma	30	30	30	30	30	30	30	30	30	30	30	30	30
Malaysia	297	314	290	300	280	280	283	282	281	280	283	285	288
Brunei	230	230	230	230	230	230	230	230	230	230	230	230	230
India	185	185	185	185	185	185	180	180	180	180	180	180	182
Indonesia	1,563	1,552	1,574	1,552	1,550	1,574	1,559	1,568	1,578	1,585	1,621	1,635	1,576
Japan	8	10	10	10	10	10	10	10	10	10	10	10	10
New Zealand	7	7	7	7	7	7	7	7	7	7	7	8	7
Pakistan	10	10	10	10	10	10	10	10	10	10	10	10	10
Phillippines	14	14	14	14	14	14	15	15	15	15	15	15	15
Taiwan	4	4	4	4	4	4	5	5	5	5	5	5	5
Total	**2,762**	**2,706**	**2,715**	**2,765**	**2,640**	**2,653**	**2,765**	**2,739**	**2,734**	**2,783**	**2,656**	**2,856**	**2,732**

Well Completions - 1979

North Africa	Total Wells	Wildcats	Fleid	Footage Ft.
Algeria	63	3	60	650,000
Egypt	75	34	41	699,000
Libya	180	30	150	1,250,000
Moroco	7	7	0	54
Sudan	6	6	0	54,000
Tunisia	22	13	9	212,000
Total	353	93	260	2,919,400

Other Africa	Wildcats	Oil	Gas	Total Dry	Footage
Angola	6	3	0	3	126,405
Cameroon	25	14	6	5	349,810
Chad	1	0	0	1	11,010
Congo	11	7	1	3	74,672
Gabon	22	7	1	14	287,659
Gambia	1	0	0	1	9,908
Ghana	2	0	0	2	26,901
Ivory Coast	3	0	0	3	32,697
Mali	1	0	0	1	5,568
Niger	3	0	0	3	32,861
Nigeria	22	11	2	9	1,209,249
South Africa	12	0	0	12	115,800
Tanzania	1	0	0	1	8,848
Zaire	1	1	0	0	9,091
Total	111	43	10	58	2,300,479

	Field Wells	Oil	Gas	Dry
Angola	12	8	0	4
Cameroon	22	21	0	4
Congo	4	4	0	0
Gabon	16	15	0	1
Nigeria	83	70	3	10
Total 1979	137	118	3	16

(Middle East) see AAPG Bulltein Vol 64111, Nov. 1980

Australia	Total Wells	Wildcats	Field	Footage Ft.
	104	49	55	596,999

Far East	Field Wells	Oil	Gas
Brunei	50	5	45
India	65	—	65
Indonesia	636	154	482
Japan	26	25	1
Malaysia	158	73	85
Pakistan	11	11	0
Philippines	29	23	6
Taiwan	23	18	5
Thailand	10	10	0

1980 Worldwide Crude Oil Production (continued)

Country	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year-to-date
AFRICA													
Algeria	1,200	1,200	1,200	1,000	1,000	1,000	900	900	900	1,000	1,000	900	1,016
Angola	45	45	45	45	45	45	45	45	45	45	45	45	45
Cabinda	105	105	105	105	105	105	105	105	105	105	105	105	105
Cameroon	55	55	55	55	55	55	46	46	46	65	79	82	58
Congo	57	57	57	57	57	55	55	55	55	55	55	55	56
Egypt	551	582	598	600	600	600	600	575	575	605	625	635	596
Gabon	180	180	180	180	180	180	180	180	180	180	180	180	180
Ghana	2	2	2	2	2	2	2	2	2	2	2	2	2
Ivory Coast	—	—	—	—	—	—	—	—	1	2	3	5	1
Libya	2,100	2,100	2,000	1,750	1,700	1,700	1,680	1,690	1,680	1,665	1,680	1,680	1,785
Morocco	1	1	1	1	1	1	1	1	1	1	1	1	1
Nigeria	2,150	2,150	2,156	2,189	2,141	2,195	2,101	2,049	1,600	1,879	2,062	2,018	2,057
Tunisia	110	110	110	110	110	110	110	110	110	110	110	110	110
Zaire	21	21	21	21	21	21	20	20	20	20	20	20	20
Total	**6,577**	**6,608**	**6,530**	**6,115**	**6,017**	**6,069**	**5,845**	**5,778**	**5,320**	**5,734**	**5,967**	**5,838**	**6,032**
COMMUNIST													
China	2,106	2,106	2,106	2,106	2,106	2,106	2,156	2,156	2,156	2,131	2,131	2,131	2,125
Romania	231	231	231	231	231	231	231	231	231	231	231	231	231
U.S.S.R.	11,969	11,955	11,999	12,049	12,109	12,049	12,179	12,226	12,226	12,229	12,149	12,119	12,109
Other	106	116	116	116	116	116	116	116	116	116	116	116	115
Total	**14,412**	**14,408**	**14,452**	**14,502**	**14,562**	**14,502**	**14,682**	**14,729**	**14,769**	**14,707**	**14,627**	**14,597**	**14,580**
World Total	**62,407**	**62,726**	**61,808**	**60,653**	**60,128**	**60,103**	**59,939**	**59,900**	**58,498**	**56,095**	**56,851**	**58,127**	**59,762**

*Totals may not add due to rounding.

Far East	**Total Wells**	**Wildcats**	**Field**	**Footage Ft.**	
Vietnam	9	9	0		
Total	1,017	328	689		
Europe	**Wildcats**	**Oil**	**Gas**	**Dry**	**Footage**
Australia	28	12	5	11	216,250
Denmark	2	1	0	1	7,511
Eire	8	1	0	7	60,600
France	24	5	0	19	210,447
Greece	5	0	0	5	24,936
Italy	43	6	11	26	496,284
Netherlands	31	1	15	15	279,600
Norway	26	8	6	12	288,700
Portugal	2	0	0	2	14,894
Spain	18	0	5	13	193,068
Sweden	11	2	0	9	11,024
U.K.	60	13	1	46	542,400
West Germany	49	4	12	33	400,928
Yugoslavia	18	2	4	12	477,860
Total	325	55	59	211	3,194,502
	Field	**Oil**	**Gas**	**Dry**	**Footage**
Austria	19	10	4	5	150,106
Erie	8	0	8	0	——
France	18	7	5	6	——
Greece	2	0	0	2	19,581
Italy	27	5	2	0	127,106
Netherlands	73	41	25	7	109,238
Norway	104	37	15	52	——
Spain	3	2	0	1	1,872
U.K.	114	73	2	39	——
West Germany	70	44	11	15	386,676
Yugoslavia	100	100	0	0	554,440
Total	538	319	92	127	
U.S.A.*	**Total**	**Oil**	**Gas**	**Dry**	**Service**
1979	51,263	19,383	14,681	15,752	1,447
	Wildcats	**Oil**	**Gas**	**Dry**	**Footage**
1979	10,484	1,240	1,784	7,460	62 467,188
1979	**Field**	**Oil**	**Gas**	**Dry**	**Footage**
	39,332	18,143	12,897	8,292	176,919,513
Canada	**Total**	**Oil**	**Gas**	**Dry**	
West	7,328	2,310	3,450	1,627	
East	90	8	39	43	
	Wildcats	**Oil**	**Gas**	**Dry**	
West	2,884	713	1,101	1,070	
East	41	3	3	35	

Footage: 243,207,903

TUCKER DRILLING'S 1 FRANK LINDLEY IN IRION COUNTY, WEST TEXAS, PUMPS INTO THE NIGHT.

SUNDOWN OVER THE MALONGO FIELDS OFF CABINDA, WEST AFRICA.

Table 1

U.S. ER production

Method	Production, b/d
Steam	295,727
Combustion in situ	12,133
Total thermal	**307,860**
Micellar-polymer	930
Polymer	924
Caustic	550
Total chemical	**2,404**
CO_2 miscible	21,532
Other gases	53,275
Total	**74,807**
Grand total	**385,071**

Latin America activity outside Venezuela

Country	Type project	Operator	Field	State/area	Start date	Area acres	No. wells Prod.	No. wells Inj.	Pay zone	Formation type	Porosity, %
Brazil	SD	Petrobras	Carmopolis	Sergipe	5/77	40	8	1	160 t	S	26.5
Brazil	FC	Petrobras	Carmopolis	Sergipe	10/79	250	15	5	50	S	18.5
Brazil	FC	Petrobras	Buracica	Bahia	11/78	10	4	1	63	S	22.3
Trinidad	SD	Texaco	Forest Reserve	....	7/77	230	62	15	Miocene	S	33
Trinidad	SD	Texaco	Forest Reserve	....	5/78	140	45	15	Miocene	S	33
Trinidad	SD	Tesoro	NW Palo Seco	Los Bajos	1/66	500	136	30	LML'E	S	33
Trinidad	SD	Tesoro	Fyzabad	....	9/74	54	8	3	U. Forest	S	34
Trinidad	SD	Tesoro	Guapo	....	1968	500	65	4	U. Cruse	S	35

Gas projects

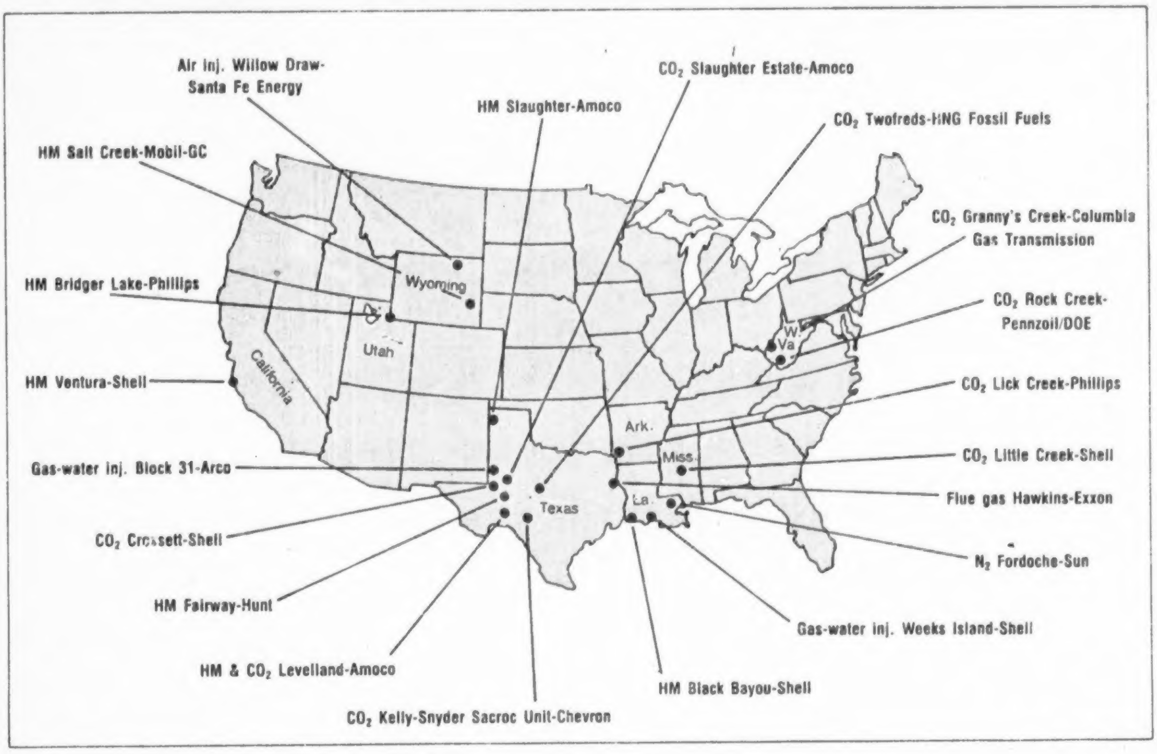

Air inj. Willow Draw-Santa Fe Energy
HM Slaughter-Amoco
CO_2 Slaughter Estate-Amoco
CO_2 Twofreds-HNG Fossil Fuels
HM Salt Creek-Mobil-GC
CO_2 Granny's Creek-Columbia Gas Transmission
HM Bridger Lake-Phillips
CO_2 Rock Creek-Pennzoil/DOE
HM Ventura-Shell
CO_2 Lick Creek-Phillips
Gas-water inj. Block 31-Arco
CO_2 Little Creek-Shell
Flue gas Hawkins-Exxon
CO_2 Crossett-Shell
N_2 Fordoche-Sun
HM Fairway-Hunt
Gas-water inj. Weeks Island-Shell
HM & CO_2 Levelland-Amoco
HM Black Bayou-Shell
CO_2 Kelly-Snyder Sacroc Unit-Chevron
Wyoming
Utah
California
Texas
Ark.
Miss.
La.
W. Va

Table 2

Active U.S. ER projects

	1971	1974	1976	1978	1980
Thermal methods:					
Steam	53	64	85	99	133
Combustion in situ	38	19	21	16	17
Chemical methods:					
Micellar-polymer	5	7	13	22	14
Polymer	14	9	14	21	22
Caustic	0	2	1	3	6
Gas methods:					
CO_2 miscible	1	6	9	14	17
Hydrocarbon miscible	21	12	15	15	9
Other gases	0	1	1	6	8

Table A

Permeability, md	Depth, ft	Reservoir oil °API	Reservoir oil cp	Reservoir oil @ °F.	Previous prod.	Residual saturation, % start	Residual saturation, % end	Project maturity	Total prod. bo/d	Enhanced prod. bo/d	Project eval.	Profit
....	2,500	22	170	122	Prim.	90	60	HF	403	403	Succ.	Yes
330	2,500	22	50	120	Prim.	90	50	JS	....	....	TETT	...
717	2,500	35	10.5	120	Prim.	93	50	HF	442	323	Succ.	Yes
200	1,000	15	170	80	Prim., S. pilot SD	90	70	JS	2,500	2,500	Succ.	...
300	1,000	16	95	100	Prim.	91	70	JS	415	260	Prom.	...
1,500-2,000	1,200	12	200-400	90-120	Prim.	100	...	HF	....	3,500	Prom.	Yes
412	2,500	24	35	80	Prim.	66	...	JS	....	200	TETT	...
800	200	12-15	1,600	120	Prim.	95	...	JS	....	1,300	Prom.	Yes

Chemical floods in U.S.

Field	State	County	Operator	Start date	Area, acres	Number wells— Prod.	Number wells— Inj.	Pay zone	Porosity, %
									MICELLAR - POLYMER (surfactant)
Wilmington	Calif.	Los Angeles	City of Long Beach-LBOD/DOE	7/77	11	6	4	50 ft	28
Benton	Ill.	Crawford	Shell	11/72	160	13	6	Tar Springs	19
Main Consolidated	Ill.	Crawford	Getty	8/79	10	9	4	Robinson	20
Robinson 119-R	Ill.	Crawford	Marathon	9/68	40	27	18	Robinson	20
Robinson 219-R	Ill.	Crawford	Marathon	10/75	117	45	38	Robinson	21
Robinson M-1	Ill.	Crawford	Marathon/DOE	2/77	407	130	114	Robinson	19
Salem Consolidated	Ill.	Marion	Texaco	4/74	5	1	4	Benoist	14.8
Bell Creek	Mont.	Powder River	Gary Operating/DOE	1977	40	9	4	Muddy	29
Sloss	Neb.	Kimbal	Amoco	6/75	9.2	1	4	Muddy J	14.2
N. Burbank	Okla.	Osage	Phillips/DOE	1975	90	16	9	Burbank	15.5
Sho-Vel-Tum	Okla.	Stephens	Getty	2/80	10	3	3	Sims	23
Bradford	Pa.	McKean	Pennzoil/DOE	10/75	24	25	16	Bradford	15
Bradford	Pa.	McKean	Pennzoil	3/71	46	25	16	Bradford	22
Manvel	Tex.	Brazoria	Texaco	6/77	10	3	2	Oligocene	30
Wichita Co. Regular	Tex.	Wichita Co.	Mobil	10/73	209	20	10	Gunsight	22
Big Muddy—	Wyo.	Converse	Conoco	1973	5	6	4	2nd Wall Creek	19
Big Muddy	Wyo.	Converse	Conoco	1978	90	16	9	2nd Wall Creek	19
Salt Creek—	Wyo.	Natrona	Amoco	9/72	2.8	1	4	2nd Wall Creek	18.5
Torchlight—	Wyo.	Big Horn	Amoco	9/76	5.2	1	4	Tensleep	14.1
									POLYMER
Smackover	Ark.	Quachita	Phillips		14	6	1		35
Coalinga	Calif.	Fresno	Shell/DOE	6/76	130	9	4	Temblor	26
Richfield	Calif.	Orange	Texaco	12/78	10	3	2	Chapman	29
Main Consolidated	Ill.	Crawford	Getty	1975	11.43	2	8	Robinson	20
Storms Pool	Ill.	White	Energy Resources	9/77	60	5	6	Waltersburg	18-22
Big Sinking	Ky.	Lee	Ashland	6/76	40	3	8	Corniferous	15
Grand Isle Blk. 18	La.		Exxon	5/77	9.5	1	1	J-80, G	31
Old Lisbon	La.		Tenneco	1/80	9,640	51	56	Pettit	16
W. Yellow Creek	Miss.	Wayne Co.	Exxon	9/76	4,813	50	29	Eutaw	26.7
Stroud	Okla.	Lincoln	Sun	8/70	600	28	19	Prue	18
North Stanley	Okla.	Osage	Gulf	6/76	1,024	27	17	Burbank	18
Brelum	Tex.	Duval	Texaco	4/69	427	7	12	Govt. Wells	29
Hagist Ranch	Tex.	Duval	Texaco	4/73	145	14	9	Argo	31
Seventy-six West	Tex.	Duval	Texaco	11/72	90	2	2	Cole	32
Stephens Co. Regular	Tex.	Stephens Co.	Mobil	3/73	2,400	65	43	Caddo	14.5
Kummerfeld	Wyo.	Crook	Terra	4/75	800	7	3	Minnelusa	17
Long Island	Wyo.		Belco	9/69	633	19	6	Almy	16
McDonald Unit #4 M-205	Wyo.		Belco	8/72	563	24	5	Almy	17.5
McDonald Unit #4 M-475	Wyo.		Belco	8/72	421	21	5	Almy	18
Ruben Unit S-3	Wyo.		Belco	11/77	660	23	7	Almy	14.1
Ruben Unit S-4	Wyo.		Belco	11/77	670	24	8	Almy	14.4
Saddle Ridge	Wyo.		Belco	12/74	376			Mesaverde	22
Stewart Ranch	Wyo.	Campbell	NCRA	11/70	1,920	15	11	Minnelusa "B"	16
Tip Top Shallow	Wyo.		Belco	12/74	420	16	2	M-Sand	15
Tip Top Shallow	Wyo.		Belco	12/74	200	9	2	Transition	15
Tip Top Shallow	Wyo.		Belco	12/74	180	3	1	Mesaverde	22
									CAUSTIC
Smackover	Ark.	Quachita	Phillips		14	6	1		35
Huntington Beach	Calif.	Orange	Aminoil/DOE	6/78	65	8	4	Lower Main Zone	24
Wilmington	Calif.	Los Angeles	City of Long Beach Thums/DOE	1978	193	23	8	Ranger	26
N. Ward Estes	Tex.	Ward	Gulf	7/77	40	8	1	Yates	19.8
N. Ward Estes	Tex.	Ward	Gulf	7/77	40	8	1	Yates	20.6
Bison Basin	Wyo.		Gulf		160	10	6	Frontier "F" Sand	24

CO^{2} miscible, and other gas projects increase in U.S.

Field	State	County	Operator	Start date	Area acres	Number wells— Prod.	Number wells— Inj.	Pay zone	Formation type	Porosity, %
										CO_2
Lick Creek	Ark.	Bradley-Union	Phillips	1/76	1,640	38	16	Meakin	S	33
McCallum Unit	Colo.	Jackson	Conoco	12/73	601	19	4	Pierre "B"	S	20
Weeks Island	La.	Iberia	Shell/DOE	10/79	8	1 (fut.)	1	S Sand Res B	S	26
Little Creek	Miss.	Pike	Shell	2/74	40	3	1	L. Tuscaloosa	S	23.4
Little Knife	N.D.	Billings	Gulf/DOE	7/79	5	0	1 (3 obs.)	Mission Canyon	Dolo.	18

Table B

Permeability, md	Depth, ft	Reservoir oil °API	cp	@°F.	Previous prod.	Residual oil saturation, % Start	End	Project maturity	Total prod. bo/d	Enhanced prod. bo/d	Project eval.	Profit
200	3,000	18	25	135	WF	39±2	15	IS	65	0	TETT	. .
60	2,100	38	3.5	86	WF	32		Term. 1978	60	40	Disc.	No
200	1,000	. .	12	85	WF	44	20	JS	14	. .	TETT	. .
200	1,000	35	7	72	WF	40	. .	Term. 12/76	0	0	Prom.	. .
105	1,000	35	7	72	WF	40		NC	85	85	Prom.	. .
102	1,000	36	6	72	WF	40		JS	550	550	TETT	. .
87	1,800	39.5	3.91	93	WF	30	25	Term. 1978	32	32	Disc.	No
1,050	4,500	33	5	110	WF	28	. .	JS	. .	. .	TETT	. .
70	6,200	38	0.8	200	WF	30	. .	Term. 12/79	. .	. .	Prom.	No
50	2,900	29	3	120	WF	30	18	NC	190	140	Prom.	No
125	6,600	30	14	130	WF	50	20	JS	. .	. .	TETT	. .
10	1,100	45	4	68	WF	40	20	JS	. .	14	TETT	. .
100	1,900	45	4	71	WF	40	20	NC		23	Succ.	No
500	5,400	28	4	165	Prim.	40	. .	NC	30	30	NE	. .
53	1,750	42	2.2	89	WF	50	. .	NC	153	0	Disc.	No
39	3,100	34	5.6	114	WF	30	. .	Term. 3/78	16	16	Prom.	No
39	3,100	34	5.6	114	WF	. .	. .	JS	. .	. .	TETT	. .
58	2,200	37	2.8	100	WF	. .	. .	JS	4	0	TETT	No
81	3,200	34.5	3.6	100	WF	. .	. .	JS	15	0	TETT	No
2,000	2,000	20	75	110	WF	65	50	JS	15	. .	TETT	. .
300	2,200	21	25	100	Prim.	38	23	Term. 7/79	400		Disc.	No
760	2,917	18	57	117	WF		. .	JS	140	0	TETT	No
200	1,000	. .	10	85	Prim.	46	35	NC	7	7	Prom.	. .
50-900	2,250	35	6	95	WF	40	30	JS	10	. .	Prom.	. .
44	1,200	40	4	60	WF	60		Term. 8/79	7	0	Disc.	No
320	8,200	34	0.9	175	Prim.	28	14	NC		. .	Disc.	No
45	5,300	34.9	2.5	178	Prim. & WF	77	65	JS	320	0	TETT	. .
167	4,950	20	20	150	WF			HF	1,500	250	Succ.	Yes
25	2,900	44	2	100	WF		. .	Term.		30	Prom.	Poss.
300	2,850	36.6	7.55	. . .	WF	61	59	NC	485	115	Prom.	No
400	1,950	23	12	115	WF	88	75	HF	34	34	Succ.	Yes
340	1,900	20	10	115	WF	83	68	HF	66	66	Succ.	Yes
1,200	1,350	20	12	100	Prim.	80	65	NC	7	7	Succ.	Yes
12	3,200	40	2.3	106	WF	53	. .	Term.	1,930	. .	NE	. .
208	7,600	19	38	130	WF	88	46	. .	. .	. .	. . .	. .
5-50	3,450	42	1.3	95	Prim.	85	44	NC	373	. .	Succ.	Yes
0.5-350	3,300	42	0.95	100	WF	69	47	HF	250	. .	Succ.	Yes
1-200	3,200	41	1.45	95	WF	61	47	HF	275	240	Succ.	Yes
0.8-56	3,300	43	0.95	93	Prim.	91	50	HF	505	. .	Succ.	Yes
4-33	3,500	43	0.9	95	Prim.	91	51	HF	546	. .	Succ.	Yes
4-110	2,500	38	2.33	70	WF	80	. .	JS	170	110	Prom.	Yes
131	8,000	22	24	136	WF	94	67	HF	1,496	. .	Succ.	Yes
25	1,000	39	2.5	70	Prim.	81	. .	JS	125	65	TETT	. .
50	11	39	2.5	70	Prim.	83	. .	JS	95	. .	TETT	. .
70	1,150	38	2.3	70	Prim.	85		JS	55	. .	TETT	. .
2,000	2,000	20	75	110	WF	65	50	JS	15		TETT	. .
200	3,800	22	15	165	WF	31	. .	JS	550	550	Prom.	Yes
400	2,700	19	24	120	WF		. .	JS	1,900	. .	TETT	. .
9	2,450	33	1.4	81	WF (part)	70	48	HF		0	TETT	No
. .	2,700	33	1.4	81	WF	54	42	HF		0	TETT	No
144	1,300	16	220	75	WF	53	35	JS	153	0	TETT	

Table C

Permeability, md	Depth, ft	Reservoir oil °API	cp	@ °F.	Previous prod.	Residual saturation, % Start	End	Project maturity	Total prod., bo/d	Enchanced prod. bo/d	Project eval.	Profit
MISCIBLE												
1,200	2,500	17	188	118	Prim.	55	46	JS	700	550	Prom.	
98	1,250	20	10	70	Prim.	100	. .	HF	. . .	. . .	Disc.	No
1,800	12,800	32	0.33	. . .	WF	24	5	HF	0	0	Prom.	No
65	10,800	39	0.34	235	Prim. & WF	54	. .	Water inj. term. 11-78 CO_2 term. 2-77	. . .	100	Succ.	No
22	9,800	43	0.2	240	Prim.	48	32	JS	17,000	. . .	TETT	. . .

(Continued on next page)

CO_2, miscible, and other gas projects increase in U.S. (continued)

Field	State	County	Operator	Start date	Area acres	Number wells — Prod.	Number wells — Inj.	Pay zone	Formation type	Porosity, %
Crossett	Tex.	Crane & Upton	Shell	5/72	1,700	19	9	Devonian	LS	22
North Cowden	Tex.	Ector	Amoco	2/79	1.0	1	4 (1 obs)	Grayburg	Dolo.	9.6
North Cowden	Tex.	Ector	Amoco	6/73	12	2	6 (1 obs)	Grayburg	Dolo. & S	10.1
Levelland	Tex.	Hockley	Amoco	6/78	1.5	1	4	San Andres	Dolo.	9.8
Levelland	Tex.	Hockley	Amoco	8/78	1.5	1	4 (1 obs)	San Andres	Dolo.	11.0
Levelland	Tex.	Hockley	Amoco	3/73	13.24	2	6 (3 obs)	San Andres	LS	10
Slaughter Estate Unit	Tex.	Hockley	Amoco	11/72	12	2	6	San Andres	Dolo.	10.5
Twofreds	Tex.	Loving, Reeves, Ward	HNG Fossil Fuels	1/74	4,546	41	22	Delaware	S	20
Kelly Snyder/Sacroc Unit	Tex.	Scurry	Chevron	1/72	49,995	607	273	Canyon Reef	LS	3.93
Wasson	Tex.	Yoakum	Arco	11/72	320	0	9	San Andres	Dolo.	11.0
Wasson San Andres	Tex.	Yoakum	Shell	1977	1	1 (sampling)	1 (3 obs)	San Andres	Dolo.	13.5
Granny's Creek	W. Va.	Clay	Columbia Gas Trans. Co./DOE	1976	6.7	12	4	Big Injun	S	18
Griffithsville	W. Va.	Lincoln	Guyan/DOE	1976	90	9	16	Berea	S	11
Rock Creek	W. Va.	....	Pennzoil/DOE	11/76	20	2	6	Big Injun	S	22
									HYDROCARBON	
Ventura	Calif.	Ventura	Shell	1/66	325	18	15	5th N Zone	S	17
Black Bayou	La.	Cameron Parish	Shell	7/66	6.2	2	1	M	S	37
Black Bayou	La.	Cameron Parish	Shell	10/68	8.8	3	1	L	S	37
Black Bayou	La.	Cameron Parish	Shell	9/72	15	1	1	0-0,	S	34
Bell Creek	Mont.	Powder River	Gary Energy	10/77	160	9	4	Muddy	S	27
Charlson*	N.D.	McKenzie	Texaco	9/74	9,100	24	7	Madison	LS	11
Fairway*	Tex.	Anderson & Hockley	Hunt	3/66	22,618	77	49	James	LS	12
Levelland	Tex.	Hockley	Amoco	5/71	1,200	40	28	San Andres	LS	10.2
Slaughter	Tex.	Hockley	Amoco	4/72	12.2	2	6 (1 obs)	San Andres	Dolo.	10.5
Salt Creek	Tex.	Kent	Mobil-GC	4/69	1,200	25	2	Canyon Reef	LS	10
Dugout Creek*	Wyo.	Johnson	Texaco	1964	.....	3	2	Shannon	S	22
Bridger Lake	Wyo./Utah	Summit/Uinta	Phillips	4/70	3,800	1	...	Dakota	S	12.8
									OTHER	
Loudon	Ill.	....	Exxon	11/79	0.7	1	4	Weiler	S	21
Weeks Island (Tertiary gas displacement)	La.	Iberia	Shell	4/74	679	13	2	S Sand Res A	S	23
Fordoche (Nitrogen)	La.	Pt. Coupee	Sun	1977	6,119	19	3	Wilcox	S	16
East Binger (Flue gas)	Okla.	....	Phillips	1977	12,960	61	17	27 ft	S	7.5
Glenn Pool Micro emulsion)	Okla.	..	Gulf	3/79	18	9	4	Upper Glenn	S	20.4
Block 31	Tex.	Crane	Arco	6/49	7,840	125	36	Devonian	LS	15
Hawkins (Flue gas)	Tex.	Wood	Exxon	4/77	10,590	351	38	Woodbine	S	27.9
Willow Draw (Air injection)	Wyo.	Park	Santa Fe Energy	1975	400	10	2	Dinwoody, Phosphoria, and Tensleep	LS	10.6

*Alternate gas-water injection.

Eastern Hemisphere activity slows

Country	Type Project	Operator	Field	State/Area	Start date	Area, acres	Number wells — Prod.	Number wells — Inj.	Pay zone	Formation type	Porosity, %
Congo	SS	Elf Aquitaine	Emeraude (offshore)	....	6/80	...	25 total wells		Cretace	S	25
France	Micellar/polymer	Elf Aquitaine	Chateaurenard	....	2/78	2.5	4	1	R3	S	30
France	Micellar/polymer	Elf Aquitaine	Chateaurenard	....	1980	150	8	4	R3	S	30
France	Polymer	Elf Aquitaine	Chateaurenard	...	6/77	110	7	1	R1-R2	S	30
France	CO_2	Elf Aquitaine	Grenade	....	3/79	...	1 total well		Vraconien	LS	10
France	SS	Elf Aquitaine	Maruejols	....	3/80	...	3 total wells		Sannoisien	LS	Fractured
France	SD	SNEA (P)	Lacq Superieur	....	1977	40	6	1	Senonien	Dolo.	15

Permea-bility, md	Depth, ft	Reservoir			Previous prod.	Residual oil saturation, %		Project maturity	Total prod. bo/d	Enhanced prod. bo/d	Project eval.	Profit
		°API	cp	@°F.		Start	End					
5	5,300	44	0.36	106	Gas inj.	86	55	HF	2,330	1,830	Succ.	Yes
5.9	4,300	35	1.4	94	New wells	67	46	JS	1	0	TETT	No
7	4,140	35	1.5	94	Prim.	51	30	HF	29	0	TETT	No
483	4,900	30	1.8	105	New wells	51	31	JS	2	2	NE	No
372	4,900	30	1.8	105	New wells	50	30	JS	4	0	TETT	No
3-10	4,800	30	2.3	105	WF	55	35	JS	50	0	TETT	No
4.3	4,950	27	2.1	105	WF	54	33	HF	128	116	Prom.	No
33	4,800	36	1.5	104	WF	84	..	E. reservoir 50% complete W. reservoir JS	887	887	Prom.	...
19.4	6,700	41	0.35	...	LS	66	44	NC	90,500	18,000	Succ.	Yes
2	5,100	32	0.99	107	WF	85	..	Susp. 2/75	...	...	TETT	No
10	4,900	32	1.4	107	WF	40	..	Term. 1979	...	...	Prom.	...
5	2,000	45	...	...	Prim./WF	..	..	NC	...	35	...	...
8	2,300	43	3.1	85	Prim.	..	..	Term. 79	...	...	...	...
20	2,000	43	3.2	73	Prim.	75	45	HF	12	12	TETT	...
MISCIBLE												
20	10,000	30	0.8	215	Prim.	70	60	NC	700	700	Succ.	Yes
1,200	4,800	24	0.8	138	Prim.	45	14	Term. 1-78	...	60	Succ.	Yes
750	4,710	24	1.0	138	Prim.	91	38	Term. 1-78	..	75	Disc.	Yes
1,500	5,700	35	0.55	156	Gas inj.	46	19	NC	...	88	Prom.	Yes
1,000	4,600	32	7	110	Prim. & WF	33	17	JS	85	...	TETT	No
0.1	8,500	42	11	77	WF	..	..	HF	...	...	TETT	..
11	9,900	48	15	265	Prim.	73	33	HF	..	11,500	Succ.	Yes
2.1	4,900	30	1.9	105	Prim.	90	30	HF	2,400	1,500 (Est.)	Succ.	Yes
4.3	5,000	28	2.0	105	WF	53	33	JS	25	25	TETT	No
10	6,498	40	0.7	129	WF	60	40	Term.	25,400	800	Succ.	Yes
120	2,000	36	3	86	WF	..	..	NC	...	...	Prom.	...
79	15,600	40	0.53	225	Prim.	94	75	NC	940	700	Succ.	Yes
150	1,550	31	4.5	79	WF	40	.	JS	0	0	TETT	No
1,000	14,000	33	0.27	240	Prim. (Natural WD)	70	14	NC	...	550	Prom.	...
8+	13,250	44	0.13	270	Gas inj.	53	28	HF	2,027	2,027	Succ.	Yes
0.2	10,000	38	0.3	190	Prim.	98	65	JS	3,000	...	TETT	...
152	1,500	39	0.44	95	WF	42	14	JS	14	0	TETT	No
1.0	8,500	46	0.3	140	Prim.	85	..	NC	16,200	16,200	Succ.	Yes
3,400	4,530	24	3.7	168	Prim.	..	..	JS	62,000	19,000	Prom.	Yes
20	4,400	16	37	146	Prim.	27	..	HF	200	50	Prom.	Yes

Table D

Perme-ability, md	Depth, ft	Reservoir oil			Previous prod.	Residual saturation, %		Project maturity	Total prod. bo/d	Enhanced prod. bo/d	Project eval.	Profit
		°API	cp	@ °F.		Start	End					
500	1,000	23	100	...	Prim.	95	90	JS	10,000	2,500	TETT	....
1,000	1,970	27	40	86	Prim.	75	30	NC	75	55	Succ.	No
1,000	1,970	27	40	86	Prim.	70	..	JS	..	..	TETT	....
2,000	1,900	27	40	86	Prim.	70	..	HF	..	..	TETT	....
150	7,700	11	1,000	161	Prim.	99	97	HF	28	10	Prom.	....
300	2,500	13	1,000	100	Prim.	99	95	JS	180	120	TETT	....
1	2,000	21	17	140	Nat. WD	75	..	HF	400	240	Prom.	....

Steam recovery still most important method in U.S.

Field	State	County	Operator	Start date	Area, acres	— Number wells — Prod.	Inj.	Pay zone	Porosity, %
									STEAM
Smackover	Ark.	Ouachita	Phillips	1971	985	156	13	20 ft	35
S. Belridge	Calif.	Kern	Mobil	7/69	420	233	53	Tulare	35
Brea Olinda	Calif.	Orange	Santa Fe Energy	3/74	24	16	2	Anaheim	31
Cat Canyon	Calif.	Santa Barbara	Getty/DOE	4/77	20	9	4	80 ft	30
E. Cat Canyon	Calif.	Santa Barbara	Texaco	11/77	20	6	2	Sisquoc, S-9,S-10	31.5
W. Coalinga, 13-D	Calif.	Fresno	Chevron USA	5/73	327	115	53	Temblor	31
W. Coalinga, 25-D	Calif.	Fresno	Chevron USA	10/79	123	39	22	Temblor	33
Cymric, 31-X	Calif.	Kern	Chevron USA	4/79	30	19	8	U. Tulare & Amnicola S	35
Cymric, 36-W	Calif.	Kern	Chevron USA	5/75	38	44	19	Tulare	35
Edison, 27-RT	Calif.	Kern	Chevron USA	7/77	30	12	6	L. Kern River	30
Kern Bluff	Calif.	Kern	Gulf	7/76	210	41	1	Santa Margarita	31
Kern Front	Calif.	Kern	Arco	9/77	3.3	5	1	Chanac	32
Kern Front	Calif.	Kern	Mobil	12/79	21	12	4	Chanac	37
Kern River—ANO	Calif.	Kern	Chevron	5/74	160	95	60	Kern River	32
Kern River—Sec. 3	Calif.	Kern	Chevron	9/68	424	257	96	Kern River	34
Kern River—KCL 39	Calif.	Kern	Chevron	10/75	118	67	47	Kern River	33
Kern River—Sec. 4	Calif.	Kern	Chevron	6/78	156	173	63	Kern River	34
Kern River—MCI	Calif.	Kern	Chevron	4/76	132	127	51	Kern River	34
Kern River—MC II	Calif.	Kern	Chevron	4/71	80	45	31	Kern River	34
Kern River	Calif.	Kern	Getty	8/62	3,454	1,261	1,394	Kern River	39
Kern River	Calif.	Kern	Santa Fe Energy	1976	22	18	11	Kern River	30
Kern River	Calif.	Kern	Santa Fe Energy	3/72	21	17	5	Kern River	34
Kern River	Calif.	Kern	Tenneco	1966	300	300	64	Kern River	32
Lost Hills	Calif.	Kern	Getty	11/75	11	9	4	Tulare	38
Lost Hills	Calif.	Kern	Getty	8/77	25	18	9	Etchegoin	38
Lost Hills, Sect. 30	Calif.	Kern	Gulf Oil E & P	5/77	25	16	4	Etchegoin Main zone	45
Lost Hills, Sect. 30	Calif.	Kern	Gulf Oil E & P	7/79	160	29	4	Tulare A S	35
Lost Hills, Sect. 32	Calif.	Kern	Gulf Oil E & P	4/77	120	33	8	Etchegoin Main zone	40
Lynch Canyon	Calif.	Monterey	Mobil/DOE	9/78	60	27	6	Lanigan	37
McKittrick, 9-Z	Calif.	Kern	Chevron USA	8/78	80	28	16	Amnicola	38
N.E. McKittrick—16Z	Calif.	Kern	Chevron	9/75	85	34	19	Amnicola	35
Midway Sec. 35	Calif.	Kern	Getty	11/77	14	18	12	Potter	38
Midway, Reward-Combined	Calif.	Kern	Getty	2/77	8	11	5	Potter	28
Midway, Security-Midway	Calif.	Kern	Getty	11/77	9	18	9	Potter	31
Midway-Sunset	Calif.	Kern	Arco	1/77	1.1	1	4	Tulare	39
Midway-Sunset	Calif.	Kern	Arco	8/72	4.7	18	2	Reef Ridge	30
Midway-Sunset	Calif.	Kern	Arco	2/72	19	34	5	Potter	35
Midway-Sunset	Calif.	Kern	Arco	1/72	4	8	1	Potter	32
Midway-Sunset—15A	Calif.	Kern	Chevron	5/78	23	40	5	Potter	36.5
Midway-Sunset 1F	Calif.	Kern	Chevron	2/78	17	21	6	U. 10-10	35
Midway-Sunset, 26C	Calif.	Kern	Chevron	11/75	39	35	14	Monarch	35
Midway-Sunset	Calif.	Kern	Santa Fe Energy	7/76	12	9	4	Potter	30
Midway-Sunset	Calif.	Kern	Santa Fe Energy	10/75	11	12	4	Spellacy	30
Midway-Sunset	Calif.	Kern	Santa Fe Energy/DOE	10/75	250	10	4 (+2 obs.)	200	30
Midway-Sunset	Calif.	Kern	Santa Fe Energy	10/72	13	4	1	Potter	30
Midway-Sunset	Calif.	Kern	Santa Fe Energy	1/67	100	114	29	Potter	35
Midway-Sunset	Calif.	Kern	Shell	8/71	120	65	18	Potter	32
Midway-Sunset	Calif.	Kern	Tenneco	1967	260	300	29	Potter, Monarch, Metson	32
Midway-Sunset	Calif.	Kern	Texaco	1972	10	8	1	Tulare	38.5
Mount Poso	Calif.	Kern	Shell	10/71	2,100	203	49	U. Vedder	33
North Poso Creek	Calif.	Kern	Elf Aquitaine O & G	10/79	40	16	9	Etchegoin S	35
San Ardo	Calif.	Monterey	Mobil	12/79	120	47	6	Lombardi	32.5
San Ardo	Calif.	Monterey	Mobil	6/68	230	54	11	Aurignac	34.5
San Ardo	Calif.	Monterey	Texaco	1969	80	29	2	Lombardi	39
San Ardo	Calif.	Monterey	Texaco	1965	792	274	57	Aurignac	39
Shiells Canyon	Calif.	Ventura	Texaco	3/73	37	18	2	203	20.5
Piceance Creek	Colo.	Rio Blanco	Equity Oil	6/79	0.6	5	8	550 ft	..
White Castle	La.	Iberville	Shell	11/74	57	14	5	V	38
White Castle	La.	Iberville	Shell	3/75	37	5	2	U	38
Loco	Okla.	Stephens	Conoco	6/76	20	24	5	J shallow	27
Loco	Okla.	Stephens	Conoco	6/76	60	30	13	J shallow	27
Saner Ranch	Tex.	....	Conoco	12/77	5	4	1	San Miguel 4	30.6
Slocum	Tex.	Anderson	Shell	3/67	258	258	49	Carrizo	34
Winkleman Dome	Wyo.	Fremont	Amoco	3/64	100	21	15	Nugget	24
								STEAM SOAK	
Arroyo Grande	Calif.	Santa Barbara	Grace	4/77	300	113	0	Dollie	31.5
Asphalto	Calif.	Kern	Getty	3/75	120	4	0	Tulare	31
S. Belridge	Calif.	Kern	Mobil	6/64	2,100	141		Tulare	35
S. Belridge	Calif.	Kern	McCulloch	1970	100	40	..	Tulare	25
Casmalia	Calif.	Santa Barbara	Grace	10/77	63	23	0	Monterey Sh	..
Cat Canyon	Calif.	Santa Barbara	Conoco	1963	650	163	..	Sisquoc	30
Cat Canyon	Calif.	Santa Barbara	Getty	1965	300	18	..	S8-16	30
Cat Canyon	Calif.	Santa Barbara	Getty	1964	1,700	156	..	S1-B	31
Coalinga	Calif.	Fresno	Shell	2/67	2,520	..	..	Temblor	28
Cymric	Calif.	Kern	Getty	1/68	70	44	..	Tulare	32

Table E

Permeability, md	Depth, ft	Reservoir oil			Previous prod.	Residual oil saturation, %		Project maturity	Total prod., bo/d	Enhanced prod., bo/d	Project eval.	Profit
		°API	cp	@° F.		Start	End					
DRIVE												
2,000	1,920	20	75	110	Prim.	71	50	HF	1,700	800	Succ.	Yes
3,000	1,000	14	1,600	95	SS/prim.	93	55	HF	6,180	5,000	TETT	...
1,086	800	12	3,100	100	Prim.	97	77	HF	...	40	Succ.	Yes
4,375	2,500	9	100,000	100	None	99	55	HF	80	80	TETT	No
404-1,749	2,160	10.4	13,250	110	SS		...	HF	102	74	Prom.	Yes
1,000	1,200	13	1,000	90	Cyclic	46	...	HF	2,200	2,000	Succ.	Yes
1,000	1,600	14	1,000	90	Prim./cyclic	50	...	JS	600	350	TETT	...
2,700	1,300	12	3,000	100	Cyclic	50	...	JS	300	150	TETT	...
2,700	1,500	13	4,000	100	Cyclic	52	...	HF	700	500	Succ.	Yes
	1,000	14	2,000	90	Prim.	50	...	JS	90	30	TETT	No
2,000	49	15	1,000	90	Prim.	74	50	JS	236	236	TETT	No
1,600	1,000	15	1,000	100	SS	...	...	JS	90	90	TETT	
1,000	1,800	14	800	100	SS	84	...	JS	190	190	TETT	...
...	1,000	14	2,000	90	Prim.	55	...	JS	2,900	2,700	Succ.	Yes
3,389	775	14	2,000	90	Prim.	55	...	HF	4,800	4,800	Succ.	Yes
...	1,400	14	2,000	90	BHH	65	...	JS	1,700	1,500	Succ.	Yes
	850	14	2,000	90	BHH	60	...	JS	3,000	2,000	Succ.	Yes
2,800	960	14	2,000	90	BHH	59	...	JS	2,400	1,800	Succ.	Yes
2,800	960	14	2,000	90	Prim.	59		JS	600	600	Succ.	Yes
3,000	900	14	4,000	90	Prim.	89	52	HF	65,000	52,250	Succ.	Yes
1,752	660	13	4,000	90	None	95	40	HF		240	Succ.	Yes
2,400	700	13	4,000	90	Prim.	78	40	HF	...	287	Succ.	Yes
4,000	400-1,300	13	4,000	...	Prim.	45	25	HF	...	2,300	Succ.	Yes
800	200	14	577	100	Prim.	99	45	HF	140	50	Prom.	...
2,000	450	14	952	100	SS	90	50	JS	690	460	Prom.	Yes
40	1,200	20	50	100	Prim.	90	70	JS	41	0	TETT	No
800	550	19	300	90	Prim.	70	40	JS	176	109	TETT	...
62	1,150	20	50	100	Prim.	90	70	JS	164	80	TETT	No
3,700	1,500	10			Prim./ER	47		JS	...	...	TETT	...
2,700	1,300	13	4,000	100	Cyclic	47		JS	850	825	Succ.	Yes
2,700	1,300	12	4,000	100	Cyclic	57		HF	1,350	1,300	Succ	Yes
3,000	1,400	13	2,000	100	SS	69	50	JS	1,865	290	Disc.	No
3,000	1,700	11	6,800	100	Prim.	89	50	JS	375	235	Succ.	Yes
3,000	1,400	12	6,200	100	SS	75	50	JS	2,310	850	Succ.	Yes
1,500	1,000	13	4,000	100	Prim.			JS	110	110	TETT	Yes
1,100	1,000	14	2,000	100	SS	...		NC	234	234	Prom.	Yes
3,500	1,500	14	2,000	100	SS			NC	872	872	Prom.	Yes
2,000	1,200	14	2,000	100	SS		...	HF	341	341	Succ.	Yes
3,900	1,400	13	900	120	Prim./cyclic	61		JS	1,600	500	Succ.	Yes
1,000	1,900	16	...		Prim./cyclic	65		JS	600	440	Succ.	Yes
1,245	1,300	14	1,500	105	Prim./cyclic	58		HF	1,600	1,150	Succ.	Yes
1,500	1,400	15	455	140	Prim./SS		...	JS	303	43	Disc.	Yes
2,200	400	11	6,500	90	Cyclic		...	JS	51	51	Prom.	NO
2,250	550	12	6,500	90	...	59	...	HF	136	136	TETT	...
1,100	1,000	11	4,000	100	Prim.	90	50	JS		161	Prom.	No
3,500	1,500	11	4,000	100	Prim.	95	20	JS		5,663	Succ.	Yes
2,000	1,200	11	5,000	90	SS	91	45	HF	6,300	6,300	Succ.	Yes
3-5,000	1,100-1,600	12	3-5,000		Prim.	50	25	HF		5,200	Succ.	Yes
1,182	300-1,300	12	3,500	100	Prim.		...	NC	160	160	Succ.	Yes
20,000	1,800	11	280	110	Prim. & WF	60	30	HF	21,500	20,000	Succ.	Yes
2,000	1,250	12	7,900	98	Prim./SS	95	50	JS	480	320	TETT	...
6,000	2,100	11	2,000	...	SS	79	65	JS	600	100	...	
3,000	2,300	12	300	...	SS	78	50	NC	3,000	3,000	Succ.	...
8,000	1,900	11	11,000	100	SS	...	...	Term. 78		100	Prom.	Yes
2,200	2,200	13	4,500	100	Cyclic	...	...	HF	22,500	22,500	Succ.	Yes
140	850	34	6	105	Prim.		...	HF	220	...	Prom.	Yes
189	780		...		None	26 gai/ton shale		JS	0	0	TETT	...
3,000	1,350	16	150	92	Prim.	99	50	JS	350	350	Prom.	Yes
3,000	1,000	15	300	90	Prim.	99	50	HF		300	Succ.	Yes
500	200	19.8	746	70	Prim.	96	40	Term. 77	175	175	Prom.	Yes
1,000	220-300	19.8	746	70	Prim.	75	45	HF	547	547	Prom.	Yes
1,000	1,550	−3	Inf.	105	None	100	...	NC	220	220	Prom.	No
50-3,000	520	19	2,000	75	Prim.	98	50	Term. 79	1,700	1,700	Succ.	Yes
480	1,225	14	900	81	Prim.	100	50	HF	770	770	Succ.	Yes
600	1,000	14	...	...	Prim.	93	73	JS	1,000	660	Prom.	Yes
450	1,400	12	780	140	Prim.	100	85	NC	...	32	Disc.	...
3,000	1,000	14	1,600	95	Prim.	93	...	NC	892	350	...	...
1,000	800	12	...	...	Prim.	60	40	HF	...	150	Prom.	Yes
...	1,800	8	...	...	Prim.	...	...	JS	600	480	Prom.	Yes
1,200	2,500-4,000	6-12	1,300	130	Prim.	98	90	NC	3,022	3,022	Succ.	Yes
3,000	3,000	12	2,000	130	Prim.	99	85	HF	...	180	Succ.	Yes
5,000	2,300	9	25,000	100	None	99	85	HF	...	3,550	Succ.	Yes
1,000	900-2,800	16-18	200-5,500	90-160	Prim.	89	30	HF		3,400	Succ.	Yes
4,000	1,000	12	2,700	100	Prim.	95	85	NC		348	Succ.	Yes

(Continued on next page)

Steam recovery (continued)

Field	State	County	Operator	Start date	Area, acres	Number wells Prod.	Number wells Inj.	Pay zone	Porosity, %
Cymric	Calif.	Kern	Gulf	5/66	26	21	. .	Tar Zone	32
Cymric	Calif.	Kern	Mobil	7/65	170	47	. .	Welport, Amnicola	38
Edison	Calif.	Kern	Exxon	1965	1,100	182	. .	Kern River	28
Fellows	Calif.	Kern	Gulf	1/78	80	15	. .	Tulare	. .
Fruitvale	Calif.	Kern	Gulf	7/77	180	. .	. .	Chanac	29
Kern Front	Calif.	Kern	Arco	1/65	156.7	58	. .	Chanac	32
Kern Front	Calif.	Kern	Getty	5/66	1,080	152	. .	Chanac, Etchegoin	30.4
Kern Front	Calif.	Kern	Mobil	5/74	600	96	. .	Chanac, Etchegoin	37
Kern River	Calif.	Kern	Getty	1974	17.5	7	. .	Kern River	39
Kern River	Calif.	Kern	Getty	1960	3,000	1,260	1,394	Kern River	39
Kern River	Calif.	Kern	Santa Fe Energy	5/64	240	172	. .	300 ft	33
Kern River	Calif.	Kern	Shell	4/63	1,300	. .	. .	Kern River	31
Lost Hills	Calif.	Kern	Arco	2/65	35	16	. .	Etchegoin	32
Lost Hills	Calif.	Kern	Getty	7/78	. .	9	4	Tulare	. .
Lost Hills	Calif.	Kern	Getty	1/68	128	26	. .	Etchegoin	38
Lost Hills, Sec. 32	Calif.	Kern	Gulf	3/79	150	23	. .	Tulare A	36
Lost Hills, Sec. 18	Calif.	Kern	Gulf	7/64	140	42	. .	Tulare Tar	30
McKittrick	Calif.	Kern	Getty	1964	500	595	. .	Potter	30
McKittrick	Calif.	Kern	Occidental	4/65	46	20	. .	Olig. S	37
Midway-Sunset	Calif.	Kern	Arco	8/64 7/69	559	262	. .	Etch. & Potter	30-35
Midway-Sunset	Calif.	Kern	General American	8/78	150	33	. .	Reef Ridge & Monarch	30
Midway-Sunset	Calif.	Kern	Getty	1/71	26	31	19	Potter	32
Midway-Sunset	Calif.	Kern	Getty	3/78	160	49	. .	Monarch	32
Midway-Sunset, Santiago	Calif.	Kern	Gulf	4/65	130	28	. .	Tulare Tar	30
Midway-Sunset	Calif.	Kern	McCullouch	7/65	80	20	. .	Potter	40
Midway-Sunset	Calif.	Kern	Mobil	10/70	350	49	. .	Monarch	34
Midway-Sunset	Calif.	Kern	Mobil	11/67	350	203	. .	Potter	35
Midway-Sunset	Calif.	Kern	Occidental	9/64	23	44	. .	Monarch	33
Midway-Sunset	Calif.	Kern	Santa Fe Energy	3/64	1,970	821	. .	200 ft	30
Midway-Sunset	Calif.	Kern	Shell	1/64	565	. .	. .	Tulare, Potter, U. Miocene	30
Midway-Sunset	Calif.	Kern	Sun	1964	226	198	Cyclic	Potter	35
Midway, Sec. 35	Calif.	Kern	Getty	6/64	215	43	12	Etch., Spellacy	37
Midway	Calif.	Kern	Getty	11/67	78	18	. .	Potter A-B-C	37
Midway	Calif.	Kern	Getty	9/64	111	50	5	Potter	35
N. Midway	Calif.	Kern	Getty	11/64	155	105		Potter	33
Paris Valley	Calif.	. .	Husky	1/75	25	18	5	S Ansberry	32
Placerita	Calif.	. .	Grace	9/77	180	37		Kraft	30
Poso Creek	Calif.	Kern	Getty	9/74	84	40	. .	Chanac, Etch.	40
San Ardo	Calif.	Monterey	Mobil	11/64	3,000	21	. .	Aurignac	34
Tejon-Grapevine	Calif.	Kern	Gulf	12/78	40	6	Cyclic	Basal Chanac	30
Yorba Linda	Calif.	Orange	Gulf	7/62	80	78	. .	Shallow Tar	27
Yorba Linda	Calif.	Orange	Shell	3/61	180	187	38	U. Congl.	30
Yorba Linda	Calif.	Orange	Tenneco	1968	57	47	. .	La Habra	33
Caddo-Pine Island	La.	Caddo	Texaco	7/75	36	4	1	Nacatoch	37

Combustion methods recovering more oil than in '78

Field	State	County	Operator	Start date	Area acres	Number wells Prod.	Number wells Inj.	Pay zone	Porosity, %
S. Belridge	Calif.	Kern	Mobil	6/64	270	72	4	Tulare	35
Brea Olinda	Calif.	Orange	Union	3/72	31	3 (35 total wells)	. .	Miocene	29
Lost Hills	Calif.	Kern	Mobil	4/61	140	34	4	"300'	37
Lynch Canyon	Calif.	Monterey	Mobil/DOE	9/78	60	27	6	Lanigan	37
Midway-Sunset	Calif.	Kern	Mobil	1/67	390	38	. .	Int. Webster	33
Midway-Sunset	Calif.	Kern	Mobil	1/60	150	29	6	Moco	36
Midway-Sunset	Calif.	Kern	Santa Fe Energy	1/72	80	18	3	Potter	32
W. Newport-Banning	Calif.	. . . .	Mobil-GC	1958	300	115	35	Miocene	37
Paris Valley*	Calif.	Monterey	Husky/DOE	1/75	25	18	5	Ansberry	32
San Ardo	Calif.	Monterey	Mobil	2/74	182	25	5	Aurignac	34.5
Plum Bush*	Colo.	. . . .	Conoco	4/77	80	3	2	Dakota J	22
Robinson Fry	Ill.	Crawford	Marathon	8/61	517	35	7	Robinson	19.7
Bellevue*	La.	Bossier	Cities/DOE	1976	110	38	5	Nacatoch	34
Bellevue	La.	Bossier	Getty	1963	345	312	94	Nacatoch	38.3
W. Heidelburg (Cotton Valley)	Miss.	Jasper	Gulf	12/71	440	10	2	CV 4 & 5	17
Red Bank	Okla.	Creek	Sun	6/66	200	6	2	Dutcher	20
Saratoga*	Tex.	. . . .	Mobil-GC	1970	150	84	10	Miocene	32
N. Ward Estes	Tex.	Ward	Gulf	6/79	60	10	1	Queen	19.2
N. Ward Estes	Tex.	Ward	Gulf	11/78	40	8	1	Yates	20.6

*COFCAW

Permeability, md	Depth, ft	Reservoir oil °API	Reservoir oil cp	Reservoir oil @ °F.	Previous prod.	Residual oil saturation, % Start	Residual oil saturation, % End	Project maturity	Total prod., bo/d	Enhanced prod., bo/d	Project eval.	Profit
1,200	700	11	. .	. .	Prim.	. .	33	HF	160	160	Succ.	Yes
3,000	400-900	12-13	1,500	95	Undev.	99	75	HF	377	377	. .	. .
1,000	1,100	16	310	95	Prim.	. .	. .	HF	1,400	1,000	Succ.	Yes
300	1,500	16	275	110	Prim.	85	83	Susp. 79	62	. .	Disc.	No
950	3,300-4,000	18	100	125	Prim.	71	57	JS	310	215	Prom.	Yes
1,600	1,600	15	1,000	100	Prim.	. .	. .	NC	458	458	Succ.	Yes
1,500	2,300	13	406	90	Prim.	82	77	HF	. .	1,707	Succ.	Yes
1,000	1,800	14	800	100	Prim.	84	73	HF	764	764	. .	. .
3,000	300-1,300	13	4,100	90	Prim.	86	76	NC	. .	5	Prom.	Yes
3,000	900	13	4,100	90	Prim.	90	86	NC	65,000	52,250	Succ.	Yes
4,000	100-800	13	4,000	90	Prim.	80	40	. .	. .	900	Succ.	Yes
2,000	300-1,300	11-13	3,000	85	Prim.	90	40	HF	6,500	6,500	Succ.	Yes
2,000	500	13	4,000	100	Prim.	. .	. .	NC	111	111	Succ.	Yes
. . . .	160	14	1,800	100	. .	. .	. .	JS	140	50	TETT	
1,000	500	13	1,000	100	Prim.	90	80	HF	600	460	Succ.	Yes
800	900	19	300	90	Prim.	70	40	JS	358	264	TETT	. .
	300	14	650	80	Prim.		14	HF	250	250	Succ.	Yes
3,000	1,200	15	600	109	Prim.	75	52	HF	. .	4,790	Succ.	Yes
	900	14			Prim.	. .	. .	HF	. .	100	Succ.	Yes
1,100-3,500	1,000-2,500	13-15	1-2,000	100	Prim.	. .	. .	NC	3,128	3,128	Succ.	Yes
1,000	600-1,200	13	. .	. .	Prim.	95	50	JS	1,200	1,150	Succ.	Yes
2,000	1,700	12	4,800	100	Prim.	82	53	JS		1,088	Succ.	Yes
800	700		. .		Prim.	50		JS	144	132	TETT	Yes
1,200	1,100	13	1,000	90	Prim.	89	. .	HF	286	217	Prom.	Yes
3,380	1,000	12	9,481	80	Prim.	75	25	HF	3,000	3,000	Succ.	Yes
4,000	950	13	800	85	Prim.	95	81	HF	447	447	. .	. .
1,000	1,000	13	1,000	100	Prim.	85	70	HF	4,023	4,023	. .	. .
2,400	1,000	13	. .	. .	Prim.	. .	. .	HF	. .	810	Succ.	Yes
1,500	400-1,800	12	4,000	100	Prim.	85	40	. .	. .	20,000	Succ.	Yes
2,000	600-1,900	10-14	2,400-5,000	80-100	Prim.	95	25	HF	7,700	7,700	Succ.	Yes
1,000	1,000-1,500	12	3,000	60	Prim.	90	50	HF		4,300	Succ.	Yes
2,000	850+	13	775	100	Prim.	94	91	HF	. .	1,022	Succ.	Yes
2,000	1,800	11	1,000	150	Prim.	99	91	HF	. .	115	Succ.	. .
2,000	1,200	14	405	100	Prim.	69	51	HF	. .	1,013	Succ.	Yes
2,500	1,400	13	1-4,000	100	Prim.	91	81	HF	. .	2,087	Succ.	Yes
3,600	800	11	50,000	87	Prim.	99	99	Term. 79	200	75	Disc.	No
600	1,300	14	. .	. .	Prim.	91	73	JS	220	130	Prom.	No
1,500	2,000	13	4,100	90	Prim.	82	76	HF		548	Succ.	. .
3,000	2,300	12	300		Prim.	88	65	NC	500	250	. .	. .
2,160	2,600	16	167	115	Prim.	72	50	JS	40	0	TETT	. .
1,000	250-1,650	13	12,000	85	Prim.	95	60	HF	1,200	1,200	Succ.	Yes
600	400-830	12	6 400	85	Prim.	95	50	HF	. .	6,700	Succ.	Yes
3-5,000	400-1,100	12	6,000		Prim.	50	25	HF	. .	400	Succ.	Yes
500	800	21	160	100	None	99	40	Term. 79	. .	. .	Disc.	No

Table F

Permeability, md	Depth ft	Reservior oil °API	Reservior oil cp	Reservior oil @ F.	Previous prod.	Residual oil saturation, % Start	Residual oil saturation, % End	Project maturity	Total prod. bo/d	Enhanced prod. bo/d	Project eval.	Profitable
3,000	1,000	14	1,600	95	SS	93	55	HF	2,270	1,900	. .	. .
300	3,500	22	20	135	Prim. & WF	72	60	NC	300	200	Succ.	Yes
5,900	300	16	410	95	Prim.	99	66	HF	488	488	. .	. .
3,700	1,500	10	. .	. .	Prim./ER	47	. .	JS	. .	. .	TETT.	. .
2,000	1,600	14	600	113	Prim.	89	69	HF	276	276	. .	. .
1,500	2,700	14	110	125	None	99	52	HF	678	678	. .	. . .
3,500	1,550	12	5,000	95	SS	90	35	JS	. .	491	Succ.	Yes
500-1,000	1,600	13	750	100	Prim.	69	40	HF	2,000	2,000	Succ.	Yes
3,600	800	11	50,000	87	Prim.	99	99	Term. 3/79		201 max. 75 avg.	Disc.	No
3,800	2,300	12	300	. .	SS	78	55	HF	500	500	. .	. .
221	5,100	39	1.5	167	WF	about 30	about 5	HF	30	0	TETT	No
320	900	28	35	60	WF	52	. .	HF	100	100	Succ.	. .
700	400	19	670	75	Prim.	95	. .	HF	. .	400	Succ.	Yes
1,090	365	19.2	554	70	Prim. & WF	90	34	HF	2,815	2,775	Succ.	Yes
70	11,300	23	6	220	Prim.	96	84	HF	1,800	1,800	Succ.	Yes
1,850	3,300	20	60	120	Prim.	. .	. .	Term.	. .	100	Prom.	Yes
500-1,000	900	19	115	90	Prim.	70	40	HF	600	350	Succ.	Yes
25	3,140	34	2.4	. .	WF	67	20	JS	20	0	TETT	No
88	2,700	33	1.4	81	WF	54	22	JS	5	0	TETT	No

ER in Venezuela still alive

Field	State	Operator	Start date	Area, acres	Number wells Prod.	Inj.	Pay zone	Porosity, %	Permeability, md
Miga (comb.)	Anzoategui	Meneven	1968	..	3	1	P-2-3	..	..
Jobo (SS)	Monagas	Corpoven	8/74	310	7	1	60	29	1,000
Jobo (SS)	Monagas	Corpoven	8/74	310	5	1	210	31	1,500
Jobo (SS)	Monagas	Lagoven	6/70		2	0	..	..	..
Morichal (HWF)	Monagas	Corpoven	3/73	600	11	1	Oficina	30	3,000
Morichal Lot 9 (comb.)	Monagas	Corpoven	3/74	2	..	..	Oficina	30	3,000
Morichal (SS)	Monagas	Corpoven	9/64	..	..	..	80	30	1,000
Morichal (SS)	Monagas	Corpoven	10/71	..	..	..	200	31	1,700
Pirital (SD)	Monagas	Corpoven	7/76	11	8	1	144	38	1,200
Bachaquero (SS)	Zulia	Lagoven	2/71	404	15	1	185	34	..
Bachaquero (SS)	Zulia	Lagoven	..	350	24	3	301	31	..
Bachaquero (SS)	Zulia	Maraven	1/70	76	6		117	34	..
Bachaquero (SS)	Zulia	Maraven	1/70	767	6		..	34	..
Bachaquero (SS)	Zulia	Maraven	1/66	168	13	..	141	32	..
Lagunillas (SS)	Zulia	Maraven	1/65	420	36	..	275	35	..
Lagunillas (SS)	Zulia	Maraven	1/67	618	52	..	275	35	..
Lagunillas (SS)	Zulia	Maraven	1/70	2,565	113	..	195	35	..
Lagunillas (SS)	Zulia	Maraven	1/70	2,114	117	..	249	35	..
Lagunillas (SS)	Zulia	Maraven	1/64	76	7	..	141	34	..
Lagunillas (SS)	Zulia	Maraven	1/70	3,025	113	..	101	34	..
Lagunillas (SD)	Zulia	Maraven	10/75	1,831	126	4	125	38	..
Lagunillas (SS)	Zulia	Meneven	9/66	71	5	..	180	38	1,250
Lagunillas (SS)	Zulia	Meneven	9/66	1,671	33	2	180	38	3,000
Tia Juana (SS)	Zulia	Lagoven	8/71	96	3	..	95	31	..
Tia Juana (SS)	Zulia	Lagoven	2/70	100	12	..	..	31	..
Tia Juana (SS)	Zulia	Meneven	7/65	71	6	..	144	36	2,900
Tia Juana Este (SS)	Zulia	Maraven	1/59	339	28	..	154	38	..
Tia Juana Este (SS)	Zulia	Maraven	1/68	2,667	138	1	111	38	..
Tia Juana Este (SS)	Zulia	Maraven	1/68	2,629	135	..	121	38	..
Tia Juana Este (SS)	Zulia	Maraven	1/69	3,604	93	..	122	38	..
Tia Juana Este (SS)	Zulia	Maraven	1/68	1,956	103	..	128	38	..
Tia Juana Este (SS)	Zulia	Maraven	1/61	36	4	..	125	38	..
Tia Juana Este (SS)	Zulia	Maraven	1/64	415	13	..	98	38	..
Tia Juana Norte (SS)	Zulia	Maraven	1/69	1,836	19	..	175	38	..
Tia Juana Principal (SS)	Zulia	Maraven	1/63	873	70	..	215	38	..
Tia Juana Principal (SS)	Zulia	Maraven	1/66	141	14	..	203	38	..
Tia Juana Principal (SS)	Zulia	Maraven	1/67	2,980	132	2	131	38	..
Tia Juana Principal (SS)	Zulia	Maraven	1/67	1,271	69	1	150	38	550- 800
Tia Juana Principal (SS)	Zulia	Maraven	1/67	1,500	72	1	159	38	500-1,000

ER efforts in Canada increasing

Type project	Deposit/ field	Province	Operator	Start date	Area, acres	Number wells Prod.	Inj.	Pay zone	Formation type	Porosity, %
SS & SD	Aberfeldy	Sask.	Husky	9/79	40	17	4	Sparky Sand	S	30
SD	Athabasca	Alta.	Texaco	1976	3.75	6	7	McMurray	Uncon.	34
SD	Athabasca	Alta.	Texaco	6/72	10	12	5	McMurray	Uncon.	34
SD	Blackfoot	Alta.	Husky	11/77	10	2	1	Lower Sparky	S	32
SS	Cold Lake	Alta.	Esso	1964	≃700	125	125 (huff & puff)	Clearwater	Tar sand	28
SS	Cold Lake/Ft. Kent	Alta.	Sun	10/75	140	40	...	Mannville	S	35
SS	Cold Lake/Lindberg	Alta.	Murphy	8/74	20	6	1	Lower Grand	S	33
SS	Eyehill	Sask.	Murphy	4/80	180	16	9	Cummings	S	34
SS	Ipiatik	....	Petro-Canada	1/79	....	1	...	.....	S	30
SS & SD	Lloydminister/N. Blackfoot	Alta.	Husky	11/77	10	2	1	...	Uncon.	34
SS	Marguerite Lake	Alta.	BP	5/78	40	12	5	Cummings	S	30
SD	Peace River	Alta.	Shell/Aostra/ Amoco Canada	1979	50	24	7	90 ft	S	28
SS & SD	Tangleflags	Sask.	Husky	10/79	40	17	4	G.P.	S	29
SD	Viking-Kinsella	Alta.	Petro-Canada	11/79	70	8 (6 observation)	7	Mannville	S	29
FC	Aberfeldy	Sask.	Husky	7/69	760	30	5	Sparky	S	35
FC	Eyehill	Sask.	Murphy	4/80	180	16	9	Cummings	S	34
FC	Kitscoty	Alta.	Mobil-GC	1975	940	85	9	16 ft	S	31
FC	Marguerite Lake	Alta.	BP	5/78	40	12	5	Cummings	S	30
FC	Silverdale	Alta.	Mobil-GC	1975	740	61	13	20 ft	S	31
FC	Silverdale	Alta.	Murphy	8/73	40	7	1	Sparky	S	34

Table G

Depth, ft	Reservoir oil			Previous prod.	Residual oil saturation %, start	Project maturity	Enhanced prod., bo/d	Project eval.	Profit
	°API	cp	@° F.						
3,300	9	..	..	Prim.			336	Succ.	
3,650	13	178	32	Prim.	76	JS	2,321	Succ.	Yes
3,650	9	2,000	32	Prim.	80	JS	1,153	Succ.	Yes
..	..	..	..	Prim.		HF	1,108	Succ.	Yes
3,250	12	100	133	Prim.	96	HF	2,935	Succ.	Yes
3,250	12	100	133	Prim.	98	JS	..	....	...
3,313	13	1,100	100	Prim.		NC		Succ.	Yes
3,510	9	1,982	100	Prim.		HF	..	Succ.	Yes
600	15	300	100	Prim./SS	60	JS		Succ.	Yes
2,750	12	200- 635	128	Prim.		HF	6,127	Succ.	Yes
4,250	13	33	137	Prim.		HF	9,761	Succ.	Yes
1,864	13	625- 700		Prim.	89	JS	309	Succ.	Yes
2,125	14	550- 600		Prim.	89		375	Succ.	Yes
3,200	13	150		Prim.	83	JS	738	Prom.	Yes
2,100	11	35,000		Prim.	75	NC	3,205	Succ.	Yes
2,100	11	3,500		Prim.	75	HF	4,439	Succ.	Yes
1,750	12	1,500- 2,500		Prim.	75	JS	40,850	Succ.	Yes
4,725	11	4,000- 9,000		Prim.	75	JS	6,439	Succ.	Yes
2,600	15	250		Prim.	87	NC	518	Succ.	Yes
2,500	15	500- 4,500		Prim.	87	JS	5,843	Succ.	Yes
1,598	12	1,000- 9,000		Prim.		JS	8,220	Prom.	
2,300	11	8,500	110	Prim.	84	NC	706	Succ.	Yes
2,300	11	8,500	110	Prim.	84	HF	3,269	Succ.	Yes
1,950	16	15	130	Prim.		NC	149	Succ.	Yes
2,450	34			Prim.		NC	2,869	Succ.	Yes
2,100	13	2,000	118	Prim.	70	NC	386	Succ.	Yes
1,500	12	1,000		Prim.	85	NC	645	Succ.	Yes
1,200	12	100- 1,000		Prim.	85	HF	8,184	Succ.	Yes
1,000	12	500- 8,000		Prim.	85	HF	4,885	Succ.	Yes
1,700	12	500- 4,000		Prim.	85	NC	4,181	Succ.	Yes
1,250	12	1,000-15,000		Prim.	85	HF	7,540	Succ.	Yes
1,000	12	..		Prim.		NC	357	Succ.	Yes
1,250	12	2,000- 4,000		Prim.	85	NC	645	Succ.	Yes
1,250/850	12	5,000-15,000		Prim.	85	HF	775	Succ.	Yes
1,750	13	750		Prim.	85	NC	6,045	Succ.	Yes
1,250	13	1,000- 1,500		Prim.	85	NC	876	Succ.	Yes
1,746	13	1,200- 7,000		Prim.	85	HF	9,825	Succ.	Yes
1,209	13	500- 5,000		Prim.	85	HF	4,114	Succ.	Yes
1,400	13	700- 1,200			85	HF	4,272	Succ.	Yes

Table H

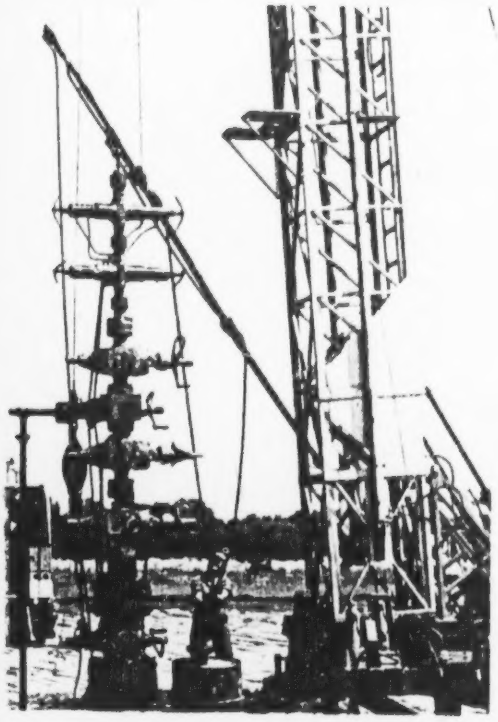
[illegible]	Depth, ft	Reservoir oil			Previous prod.	Residual saturation, %		Projects maturity	Total prod., bo/d	Enhanced prod., bo/d	Project eval.	Profitable
		°API	cp	@ °F		Starts	End					
1,200	1,700	16	420	70	Prim. & WF	94	..	†JS	40	...	TETT	..
250	250	8	10	400	Not produced	100	..	HF	...	...	Prom.	No
250	250	8	10	400	Not produced	100	..	HF		...	Prom.	No
1,024	1,925	15	2,000	60	Prim. & WF	93	..	JS	....	....	TETT	No
1,500	1,500	11	100,000	55	Nil	100	80	Ongoing	7,000	7,000	Succ.	No
2,500	1,200	12		60	Prim.	80		....	..	1,500	Prom.	..
2,500	1,620	10	100,000	70	.	100	75	JS		325	Prom.	No
6,000	2,450	14.3	2,750	70	Prim.	100	80	Under const.	600	600	TETT	..
1,000	1,600	10	30,000	100	No cold prod.	100	80	HF	0	100-10	TETT	No
2,000	1,925	15	2,000	60	WF	93	..	JS	...	...	TETT	..
500-3,000	1,450	11	750 23,700	140 70	Neg. prim. prod.	100	70	JS	*	*	TETT	No
...	1,700	...	.....	....	....	...	..	JS	...	...	TETT	..
	1,506	15	1,400	76	Prim.	99	97	JS	...	...	TETT	..
800	2,200	15	400	...	Prim.	65	..	JS	30	0	TETT	No
2,000	1,800	16	500,000	70	Prim.	96	26	HF	...	400	Disc.	No
6,000	2,450	14.3	2,750	70	Prim.	100	80	Under const.	600	600	TETT	..
2,000	1,800	12.2	15,000	70	Prim.	..	..	JS	720	...	Prom.	..
500-3,000	1,450	11	750 23,700	140 70	Neg. prim. prod.	100	70	JS	*	*	TETT	No
2,000	1,900	15.6	1,800	70	Prim.	..	..	JS	480	...	Prom.	..
487	1,850	14	440	70	Prim.	93	53	JS	...	200	Prom.	No

(Continued on next page)

ER efforts in Canada increasing (continued)

Type project	Deposit/ field	Province	Operator	Start date	Area, acres	Number wells Prod.	Number wells Inj.	Pay zone	Formation type	Porosity, %
WC	Aberfeldy	Sask.	Husky	7/69	280	38	7	Sparky	S	30
WC	Athabasca	Alta.	Amoco Canada/ Aostra	1976	23	16	9	McMurray	Uncon.	35
WC	Battrum #1	Sask.	Mobil	10/66	2,900	100	9	Battrum-Roseray	S	26
WC	Battrum #2	Sask.	Mobil	11/65	800	13	2	Battrum-Roseray	S	27
WC	Battrum #3	Sask.	Mobil	8/67	2,000	25	4	Battrum-Roseray	S	25
WC†	Celtic	Sask.	Mobil	1/79	125	20	5	Waseca	S	33
WC	Fosterton	Sask.	Mobil	2/70	260	6	1	Roseray	S	28.8
WC	Golden Lake	Sask.	Husky	7/69	315	15	3	Sparky	S	33
WC	Joarcam	Alta.	Esso	9/79	960	6	1	Viking	S	22
WC	Viking-Kinsella	Alta.	Petro-Canada	11/79	70	8	7	Mannville	S	29
HM	Ante Creek	Alta.	Amoco Canada	5/68	6,400	14	6	BHL	Dolo.	..
HM	Caroline	....	Petro-Canada	8/78	9,159	29	6	7 ft	S	10.8
HM	Golden Spike	Alta.	Esso	1964	1,280	46	5	489 ft	LS	9
HM	Pembina	Alta.	Texaco	1/72	5,540	29	4	Cardium	Congl.	9
HM	Rainbow AA	Alta.	Mobil	9/72	690	6	2	Keg River	LS	12
HM	Rainbow T, Z, FF	Alta.	Esso	6/69	511	4	4	Keg River	Dolo.	7
HM	Rainbow S.B.	Alta.	Amoco Canada	1972	640	3	1	Keg River	LS	5
HM	S. Swan Hills	Alta.	Amoco Canada	7/73	16,000	98	22	Beaverhill Lake	LS	8
HM	Willmar	Sask.	Gulf Canada	12/77	10	4	1	50 ft	LS	14.6
HM	Wizard Lake	Alta.	Texaco	11/69	4,800	16	12	Leduc	Dolo.	10

*Project has regulatory approval to produce up to 900 bo/d. †With stimulation.



CREW RIGS DOWN AFTER PERFORATING DEEP MATAGORDA COUNTY, TEX., WELL FOR PRAIRIE PRODUCING CO.

More ER projects planned for U.S.

Field	State	Operator	Size, acres	Pay zone	Depth ft	°API
		Steam				
Bradley Canyon (SD)	Calif.	Chevron	40	Sisquoc	2,500+	11.2
Cat Canyon (SD)	Calif.	Conoco	..	Sisquoc	3,800	8
Cat Canyon	Calif.	Husky	..	Brooks	3,000	4-10
W. Coalinga (SD)	Calif.	Chevron	192	Temblor	1,200	13
Cymric (SD)	Calif.	Chevron	110	Tulare	1,500	13
Cymric (SD)	Calif.	Chevron	30	U. Tulare	1,300	12
Cymric	Calif.	Getty	22	Tulare	1,350	12.5
Cymric	Calif.	Getty (1983)	9	Tulare	1,200	13
Edison (SD)	Calif.	Exxon	1,100	Kern River	1,100	16
Guadalupe (SD)	Calif.	Union	132	Sisquoc	3,000	10
Huntington Beach (SD)	Calif.	Aminoil	5	"90"	1,500	13
Huntington Beach (SD)	Calif.	Aminoil	5	"110"	2,600	15
Kern Front (SD)	Calif.	Chevron	36	Chanac	2,500+	14
Kern River (SD)	Calif.	Chevron	80	L. Kern River	1,400	12.5
McKittrick	Calif.	Getty	10	Potter	1,200	12.5
McKittrick	Calif.	Getty (1982)	18	Tulare	1,000	12
N. Midway	Calif.	Getty (1981)	440	Tulare	1,000	13
N. Midway	Calif.	Getty (1981)	840	Potter	1,300	13
Midway-Sunset (SD)	Calif.	Chevron	55	U. Miocene	1,300	13.5
Midway-Sunset (SD)	Calif.	Chevron	30	Monarch	1,300	14
Midway-Sunset (SD)	Calif.	Chevron	14	U. Miocene	2,500	21
Midway-Sunset (SD)	Calif.	Chevron	25	U 10-10	1,900	16
Round Mountain	Calif.	Getty (1981)	40	Vedder	2,000	16.4
Yorba Linda	Calif.	Gulf	50	Shall'w Tar	250-800	12.5
Caddo Pine Island	La.	Texaco	5	Nacatoch	1,000	21
Sour Lake	Texas	Texaco	7	OB-1 miocene	1,000	14
		Combustion				
CDLB	Calif.	Union	5	Sespe	3,000	18
Fruitvale NW	Calif.	Gulf	215	M. Kernco	3,800	14
Tejon	Calif.	Gulf	175	Valv	5,400	20
Hospah south	New Mex.	Tenneco	8	U & L Hospah	1,600	25-33
Holt	Texas	Arco	151	Holt	1,700	32
Slocum	Texas	Goldking Production	10	"30"	600	18.6
		Micellar—Polymer (surfactant)				
Wilmington	Calif.	Mobil	40	Ranger	3,000	15
Loudon	Ill.	Exxon	1	Weiler	1,600	39
Salem	Ill.	Texaco	60	Benoist	1,800	39.5
Madison	Kan.	Cities	22.5	Bartlesville	1,900	38
South Pass 27	La.	Shell	2.8	N-4	7,800	24

Permeability, md	Depth ft	Reservoir oil °API	cp	@°F.	Previous prod.	Residual saturation, % Start	End	Project maturity	Total prod., bo/d	Enhanced prod., bo/d	Project eval.	Profit
1,200	1,750	15.5	1,200	77	Steam flood	96	75	HF	300	300	Disc.	No
2,000	1,000	8	....	....	.....	62	...	...	...	...	TETT	...
1,265	3,300	19	70	110	Prim.	94	65	HF	...	2,900	Succ.	Yes
1,234	3,300	19	70	110	Prim.	95	60	HF		1,300	Succ.	Yes
900	3,300	19	70	110	Prim.	96	60	HF		800	Succ.	Yes
700	1,500	13	5,000	75	Prim.	99	67	JS	600	...	TETT	...
958		24	16	125	Prim. & WF	77	65	HF	200	40	Prom.	No
1,100	1,600	12	6,000	70	Prim.	82	..	NC	400	380	Prom.	No
1,000	3,200	38	1.2	110	WF	22	0	JS	400	0	TETT	No
800	2,200	15	400	....	Prim.	65	..	JS	30	0	TETT	No
...	11,000	42	0.13		Prim.	92	50	HF	...	350	NE	...
30	4,800	41	0.254	173	Prim.	85	50	JS	1,100	...	Succ.	Yes
300	5,672	37	8	153	GF	89	32	Comp.	...	...	Disc.	Yes
1,260	5,000	32	2.0	131	WF	83	40	Term. 12-77		1,462	Partially succ.	No
2,000	6,000	35	0.5	184	GF	92	15	JS	...	...	Prom.	Yes
100	5,500	37	0.6	186	Prim.	97	18	30% comp.	...	3,000	Prom.	Yes
163	6,300	41	0.4	60	Pressure main.	85	15	JS		1,500	Succ.	Yes
49	8,500	38	0.4	225	Prim.	..	35	JS		1,500	Prom.	Yes
360	4,060	35	0.935	130	Prim.	45	11	HF	170	...	TETT	...
1,300	6,200	39	0.5	167	Prim.	82	16	HF	...	...	Succ.	Yes

Table I

Field	State	Operator	Size, acres	Pay zone	Depth ft	°API
Bell Creek	Mont.	Gary Energy	240	Muddy	4,600	32
Velma	Okla.	Getty	20	Sims	2,000-7,500	27
W. Burbank	Okla.	Gulf	1,920	U. Burbank	2,900	36
Bradford	Pa.	Pennzoil	220	Bradford	1,800	45
		Polymer				
B. V. Hills	Calif.	Getty	9	Wilhelm	2,000	26
Cat Canyon	Calif.	Union	170	Sisquoc	3,000	17
Sawyer unit	Mont.	Buttes	332	Tyler	4,800	34
N. Burbank	Okla.	Phillips	1,440	Burbank	2,900	39
Eliasville Caddo unit	Texas	Texas Pacific	3,931	Caddo	3,000	38
Isenhour	Wyo.	Belco	173	Almy	3,700	43.1
		Caustic				
Orcutt	Calif.	Union	150	Point Sal	3,000	22
Fannett	Texas	Gulf	100	Nodosaria	8,500	26
Toborg	Texas	Gulf	5	Toborg	350	22
Van	Texas	Union	20	Lewisville	2,500	35
		Co_2 miscible				
Huntington Beach	Calif.	Aminoil	17	"100"	3,000	16
Wilmington	Calif.	Champlin	40.5	Tar	2,500	14
Bay St. Elaine	La.	Texaco	10.8	8,000 ft S	7,800	35.8
Tinsley	Miss.	Pennzoil	1,120	Perry	4,900	39
Raymond	Mont.	Santa Fe Energy	450	Win'epegosis	9,200	42
Raymond	Mont.	Santa Fe Energy	475	Nisku	7,900	40
Raymond*	Mont.	Santa Fe Energy	530	Duperow	8,300	46
Maljamar	N. Mex.	Conoco	5	San Andres	3,600-4,100	35-37
Garber	Okla.	Arco	80	Crews	2,100	45
N.E. Purdy unit	Okla.	Cities	10 000	Springer A	9,500	38
Bennett Ranch unit	Texas	Texas Pacific (1985)	7,027	San Andres	5,200	35
Fort Geraldine	Texas	Conoco (1981)	3,850	Ramsey	2,680	36
Kurten	Texas	Gulf	80	Woodbine	8,200	37
Central Levelland unit	Texas	Texas Pacific (1986)	5,188	San Andres	5,200	35
S.E. Levelland unit	Texas	Texas Pacific	5,800	San Andres	5,200	35
N. McElroy	Texas	Getty	10	San Andres	2,900	33
OSR Halliday	Texas	Robert Mosbacher	80	Woodbine	8,000	39
Reeves**	Texas	Santa Fe Energy	6,840	San Andres	5,600	33
Aneth	Utah	Phillips (1981)	12,960	Desert Creek	5,500	40
Blue Creek	W. Va.	Gary Energy	200	Weir	2,000	42
*followed by steam	**followed by N_2.					
		N_2 injection (immiscible)				
Stonebluff	**Okla.**	**Gulf**	**674**	**Dutcher**	**1,100**	**39**

Table J

Field-wide projects (not pilots)

Type	Operator	Field	Began	Acres	Status	Wells	
						Prod.	Inj.
SD	Texaco	Aurignac	1965	792	HF	274	57
SD	Mobil	Aurignac	6/68	230	NC	54	11
SD	Chevron	Kern River	9/68	424	HF	257	96
SD	Chevron	Kern River	5/74	160	JS	95	60
SD	Chevron	Kern River	10/75	118	JS	67	47
SD	Chevron	Kern River	4/71	80	JS	45	31
SD	Chevron	Kern River	6/78	156	JS	173	63
SD	Chevron	Kern River	4/76	132	JS	127	51
SD	Conoco	Loco	6/76	60	HF	30	13
SD	Gulf	Lost Hills	7/79	160	JS	29	4
SD	Chevron	McKittrick	8/78	80	JS	28	16
SD	Chevron	Midway-Sunset	11/75	39	HF	35	14
SD	Chevron	Midway-Sunset	5/78	23	JS	40	5
SD	Elf-AOG	N. Poso Creek	10/79	40	JS	16	9
SD	Mobil	San Ardo	12/79	120	JS	47	6
SD	Mobil	S. Belridge	7/69	420	HF	235	53
SD	Chevron	W. Coalinga	5/73	327	HF	115	53
SD	Chevron	W. Coalinga	10/79	123	JS	39	22
SD	Shell	White Castle	11/74	57	HF	14	5
SD	Shell	White Castle	3/75	37	HF	5	2
SD	Amoco	Winkleman Dome	3/64	100	HF	21	15
SS	Grace	Arroyo Grande	4/77	300	JS	113	
SS	Grace	Casmalia	10/77	63	JS	23	
SS	Conoco	Cat Canyon	1963	650	NC	163	..
SS	Gulf	Cymric	5/66	26	HF	21	..
SS	Mobil	Cymric	7/65	170	HF	47	..
SS	Exxon	Edison	1965	1,100	HF	182	..
SS	Arco	Kern Front	1/65	151	NC	58	..
SS	Mobil	Kern Front	5/74	600	HF	96	..
SS	Arco	Lost Hills	2/65	35	NC	16	..
SS	Gulf	Lost Hills	3/79	150	JS	23	..
SS	Gulf	Lost Hills	7/64	140	HF	42	..
SS	Arco	Midway-Sunset	8/64	559	NC	262	..
SS	General American	Midway-Sunset	8/78	150	JS	33	..
SS	Getty	Midway-Sunset	3/78	160	JS	49	0
SS	Mobil	Midway-Sunset	10/70	350	HF	49	..
SS	Mobil	Midway-Sunset	11/67	350	HF	203	..
SS	Grace	Placerita	9/77	180	JS	37	0
SS	Mobil	San Ardo	11/64	3,000	NC	21	0
SS	Gulf	Santiago (Midway-Sunset)	4/65	130	HF	28	0
SS	Mobil	S. Belridge	6/64	2,100	NC	141	0
SS	Gulf	Yorba Linda	7/62	80	HF	78	0
WC	Getty	Bellevue	1963	345	HF	312	94
FC	Mobil	Lost Hills	4/61	140	HF	34	4
FC	Mobil	Midway-Sunset	1/67	390	HF	38	0
FC	Mobil	Midway-Sunset	1/60	150	HF	29	6
FC	Marathon	Robinson Fry	8/61	517	HF	35	7
FC	Mobil	San Ardo	2/74	182	HF	25	5
OFCAW	Mobil-GC	Saratoga	1970	150	HF	84	10
FC	Mobil	S. Belridge	6/64	270	HF	72	4
FC	Gulf	W. Heidelburg	12/71	440	HF	10	2
FC	Mobil-GC	W. Newport Banning	1958	300	HF	115	35
HM	Shell	Black Bayou	9/72	15	NC	1	1
Flue gas	Arco	Block 31	6/49	7,840	NC	125	36
CO_2	Chevron	Kelly Snyder Sacroc	1/72	49,995	NC	607	273
HM	Amoco	Levelland	5/71	1,200	HF	40	28
TGP*	Shell	Weeks Island	4/74	679	NC	13	2
Air inj.	Santa Fe Energy	Willow Draw	1975	400	HF	10	2
Caustic	Gulf	Bison Basin	....	160	JS	10	6
Polymer	Texaco	Brelum	4/69	427	HF	7	12
Polymer	Texaco	Hagist Ranch	4/73	145	HF	14	9
Polymer	Gulf	N. Stanley	5/76	1,024	NC	27	17
Polymer	Tenneco	Old Lisbon	1/80	9,640	JS	51	56
Micellar-polymer	Marathon	Robinson M-1	2/77	407	JS	130	114
Polymer	Texaco	Seventy-six West	11/72	90	NC	2	2

*Tertiary gas displacement.

Table K

Worldwide projects planned

Type project	Field	Country/state	Operator	Size, acres	Pay zone	Zone depth, ft	Crude, °API	Target date
Steam	Muriel Lake	Canada/Alta.	Petro-Canada	3⅓	40 ft	1,500	10	9-80
Caustic flooding	Wainwright Pool	Canada/Alta.	Petro-Canada	10	13 ft	2,200	24	Early 1980
HM	Braseau River Nisku A Pool	Canada/Alta.	Petro-Canada	480	480	10,270	42	4-80
HM	D	Canada/Alta.	Petro-Canada	320	320	10,100	42	10-80
HM	E	Canada/Alta.	Petro-Canada	420	115	10,500	46	10-80
Alkaline polymer	Wainwright	Canada/Alta.	Husky	180	Wainwright	1,900	22	1980
CO_2	Judy Creek BHL 'A'	Canada/Alta.	Esso	27,800	60	8,700	41.4	1982
CO_2	Judy Creek BHL 'B'	Canada/Alta.	Esso	9,800	61	8,700	42	1982
WC	Joarcam	Canada/Alta.	Esso	5,400	10	3,200	38	1981
Polymer	Rodney	Canada/Ontario	Cities	600	Columbus	400	38	4-80
SD	Llancanelo	W. Argentina	Yacimientos Petroliferos Fiscales	..	..	2,500-3,000	12	1980
SD	Quarry	Trinidad	Tesoro	..	..	..	..	..
SD	Jobo	Venezuela/Monagas	Corpoven	124	177 ft	3,750	9	..
SD	Jobo	Venezuela/Monagas	Lagoven	105	80 ft	3,585	9	..

Vorldwide production statistics*

MIDDLE EAST

pper figures = 1,000 b/d
wer figures = million t/y

	1940	1950	1960	1965	1970	1972	1973	1974	1975	1976	1977	1978	1979	1980
bu Dhabi	... ...	... ...	... ...	281.9 14.0	693.8 34.6	1,050.0 52.3	1,298.0 64.6	1,421.0 70.8	1,403.0 69.9	1,590.0 79.2	1,680.0 83.7	1,450.0 72.2	1,464.0 72.9	1,350.0 67.2
ahrain	19.3 0.9	30.4 1.5	45.1 2.2	57.0 2.8	76.6 3.8	70.0 3.5	68.0 3.4	67.0 3.3	61.0 3.0	58.0 2.9	54.0 2.7	56.0 2.8	51.0 2.5	48.0 2.4
ubai	... ...	... ...	... ...	... ...	— ...	153.0 7.6	220.0 11.0	239.0 11.9	254.0 12.6	315.0 15.7	320.0 15.9	360.0 17.9	354.0 17.6	349.0 17.4
ran	181.2 9.0	664.3 33.1	1,067.6 53.2	1,885.5 93.9	3,328.8 165.8	5,023.1 250.1	5,860.9 291.9	6,021.6 299.9	5,350.1 266.4	5,882.9 293.0	5,662.8 282.0	5,241.7 261.0	3,101.0 154.4	1,467.0 73.0
raq	60.7 3.0	136.2 6.8	1,004.2 50.0	1,315.2 65.5	1,548.6 77.1	1,465.5 73.0	2,018.1 100.5	1,970.6 98.1	2,261.7 112.6	2,415.4 120.3	2,348.2 116.9	2,562.0 127.6	3,434.0 171.0	2,638.0 131.3
srael	... ...	... ...	2.5 0.1	4.0 0.2	70.2 3.5	108.0 5.4	88.0 4.4	100.0 5.0	75.0 3.7	0.7 ...	0.7 ...	10.0 0.5	31.0 1.5	1.0 ...
uwait	... ...	344.4 17.1	1,628.2 81.1	2,169.5 108.0	2,734.5 136.2	2,999.2 149.4	2,761.0 137.5	2,276.0 113.3	1,837.0 91.5	1,913.0 95.3	1,783.0 88.8	1,865.0 92.9	2,213.0 110.2	1,382.0 68.8
Neutral Zone	... ...	... ...	136.2 6.8	360.9 18.0	500.6 24.9	571.2 28.4	525.6 26.2	541.0 26.9	496.0 24.7	471.0 23.5	355.0 17.7	466.0 23.2	567.0 28.2	540.0 26.9
man	... ...	... ...	... —	... ...	332.4 16.6	282.0 14.0	293.0 14.6	291.0 14.5	341.0 17.0	366.0 18.2	350.0 17.4	320.0 15.9	295.0 14.7	283.0 14.1
Qatar	... ...	33.6 1.7	175.1 8.7	231.1 11.5	362.4 18.0	482.4 24.0	570.3 28.4	518.4 25.8	437.6 21.8	497.6 24.8	444.6 22.1	486.7 24.2	504.0 25.1	472.0 23.5
audi Arabia	13.9 0.7	546.7 27.2	1,247.1 62.1	2,024.9 100.8	3,548.9 176.7	5,733.4 285.5	7,334.0 365.2	8,210.0 408.9	6,827.0 340.0	8,344.0 415.5	9,014.0 448.9	8,059.0 401.3	9,251.0 460.6	9,630.0 479.5
Sharjah	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	38.0 1.9	37.0 1.8	30.0 1.5	24.0 1.2	13.0 0.6	10.0 0.5
Syria	... ...	... —	... ...	... ...	83.1 4.1	120.0 6.0	99.0 4.9	132.0 6.6	175.0 8.7	175.0 8.7	200.0 10.0	170.0 8.5	163.0 8.1	165.0 8.2
Turkey	... ...	0.3 ...	7.0 0.3	29.7 1.5	67.9 3.4	65.0 3.2	66.0 3.3	65.0 3.2	60.0 3.0	69.0 3.4	65.0 3.2	50.0 2.5	56.0 2.8	44.0 2.2
Total	**275.1** **13.6**	**1,755.7** **87.4**	**5,313.0** **264.5**	**8,359.7** **416.2**	**13,347.8** **664.7**	**18,122.8** **902.4**	**21,201.9** **1,055.9**	**21,852.6** **1,088.2**	**19,616.4** **976.8**	**22,134.6** **1,102.3**	**22,307.3** **1,110.8**	**21,120.4** **1,051.7**	**21,496.0** **1,070.3**	**18,379.0** **915.0**

*Totals may not add due to rounding.

ASIA-PACIFIC

Upper figures = 1,000 b/d
Lower figures = million t/y

	1940	1950	1960	1965	1970	1972	1973	1974	1975	1976	1977	1978	1979	1980
Afghanistan	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	0.2 ...	0.2 ...	0.2 ...	... ...	... ...
Australia	... ...	... ...	... ...	7.2 0.4	175.6 8.7	341.0 17.0	419.0 20.9	385.0 19.2	411.0 20.5	417.0 20.8	431.0 21.5	430.0 21.4	441.0 22.0	379.0 18.9
Brunei	19.3 1.0	84.8 4.2	92.9 4.6	80.4 4.0	148.0 7.4	276.0 13.7	320.0 15.9	328.0 16.3	175.0 8.7	200.0 10.0	207.0 10.3	210.0 10.5	256.0 12.7	230.0 11.5
Burma	21.1 1.0	1.5 0.1	11.1 0.6	12.1 0.6	16.4 0.8	19.0 0.9	20.0 1.0	20.0 1.0	20.0 1.0	20.0 1.0	23.0 1.1	25.0 1.2	30.0 1.5	30.0 1.5
India	3.9 0.2	5.1 0.2	9.0 0.4	61.8 3.1	138.6 6.9	151.0 7.5	148.0 7.4	149.0 7.4	165.0 8.2	180.0 9.0	200.0 10.0	230.0 11.5	245.0 12.2	182.0 9.1
Indonesia	169.4 8.4	132.6 6.6	411.2 20.5	485.0 24.1	853.6 42.5	1,080.8 53.8	1,338.5 66.7	1,374.5 68.4	1,306.5 65.1	1,503.6 74.9	1,686.1 84.0	1,635.2 81.4	1,595.0 79.4	1,576.0 78.5
Japan	7.2 0.4	5.6 0.3	10.2 0.5	11.4 0.6	16.3 0.8	15.0 0.7	15.0 0.7	15.0 0.7	12.0 0.6	12.0 0.6	10.0 0.5	10.0 0.5	8.0 0.4	10.0 0.5
Malaysia	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	100.0 5.0	161.0 8.0	190.0 9.5	210.0 10.5	259.0 12.9	288.0 14.3
New Guinea	... ...	4.8 0.2	4.2 0.2	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...
New Zealand	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	10.0 0.5	15.0 0.7	13.0 0.6	9.0 0.4	7.0 0.3
Pakistan	2.4 0.1	3.5 0.2	7.2 0.4	11.2 0.6	9.9 0.5	8.5 0.4	8.5 0.4	9.0 0.4	6.0 0.3	7.0 0.3	10.0 0.5	9.3 0.5	10.0 0.5	10.0 0.5
Philippines	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	26.0 1.3	15.0 0.7
Taiwan	... ...		0.4 ...	0.4 ...	1.8 0.1	2.0 0.1	2.0 0.1	3.0 0.1	5.0 0.2	4.2 0.2	5.0 0.2	4.3 0.2	5.0 0.2	5.0 0.2
Thailand	... ...	... ...	... ...	... ...	0.4 ...	0.3 ...	0.3 ...	0.2 ...	0.2 ...	0.3 ...	0.2 ...	0.2 ...	... ...	... ...
Total	**223.3** **11.1**	**237.9** **11.8**	**546.2** **27.2**	**669.5** **33.4**	**1,360.6** **67.7**	**1,893.6** **94.1**	**2,271.3** **113.1**	**2,283.7** **113.5**	**2,200.7** **109.6**	**2,515.3** **125.3**	**2,777.5** **138.3**	**2,777.2** **138.3**	**2,883.0** **143.5**	**2,732.0** **136.0**

EUROPE

Upper figures = 1,000 b/d
Lower figures = million t/y

	1940	1950	1960	1965	1970	1972	1973	1974	1975	1976	1977	1978	1979	1980
Austria	7.7 0.4	27.9 1.4	45.4 2.3	53.1 2.6	53.3 2.7	47.0 2.3	49.0 2.4	46.0 2.3	40.0 2.0	37.0 1.8	36.0 1.8	35.0 1.7	35.0 1.7	29.0 1.4
Denmark	... ...	... ...	... ...	... ...	... ...	4.0 0.2	4.0 0.2	3.0 0.1	3.0 0.1	3.0 0.1	9.0 0.4	10.0 0.5	8.0 0.4	6.0 0.3
France	1.4 0.1	2.5 0.1	38.6 1.9	59.5 3.0	45.8 2.3	30.0 1.5	26.0 1.3	23.0 1.1	20.0 1.0	20.0 1.0	20.0 1.0	21.0 1.0	20.0 1.0	26.0 1.3
Germany, Fed. Rep.	20.1 1.0	22.2 1.1	107.3 5.3	155.0 7.7	147.2 7.3	138.0 6.9	129.0 6.4	121.0 6.0	112.0 5.6	110.0 5.5	108.0 5.4	102.0 5.1	94.0 4.7	90.0 4.5
Italy	0.2 ...	0.2 ...	37.5 1.9	47.0 2.3	26.3 1.3	21.0 1.0	15.0 0.7	19.0 0.9	19.0 0.9	20.0 1.0	18.0 0.9	28.0 1.4	30.0 1.5	39.0 1.9
Netherlands	.. ...	13.4 0.7	36.0 1.8	37.0 1.9	35.8 1.8	31.0 1.5	29.0 1.4	30.0 1.5	30.0 1.5	31.0 1.5	30.0 1.5	36.0 1.8	25.0 1.2	25.0 1.2
Norway	... ...	... ...	... ...	... ...	... ...	33.0 1.6	32.0 1.6	35.0 1.7	189.0 9.4	279.0 13.9	270.0 13.4	350.0 17.4	403.0 20.1	528.0 26.3
Spain	... ...	... ...	... ...	... ...	3.6 0.2	3.0 0.1	16.0 0.8	37.0 1.8	36.0 1.8	40.0 2.0	21.0 1.0	20.0 1.0	15.0 0.7	30.0 1.5
United Kingdom	0.3 ...	0.9 ...	1.7 0.1	1.7 0.1	1.7 0.1	2.0 0.1	2.0 0.1	2.0 0.1	12.0 0.6	245.0 12.2	744.0 37.0	1,082.0 53.9	1,568.0 78.1	1,619.0 80.6
Yugoslavia	0.3 ...	2.1 0.1	18.8 0.9	40.7 2.0	57.8 2.9	65.0 3.2	68.0 3.4	67.0 3.3	75.0 3.7	77.5 3.9	79.0 3.9	82.0 4.1	70.0 3.5	80.0 4.0
Total	**30.0** **1.5**	**69.2** **3.4**	**285.3** **14.2**	**394.0** **19.6**	**371.5** **18.6**	**374.0** **18.4**	**370.0** **18.3**	**383.0** **18.8**	**536.0** **26.6**	**862.5** **42.9**	**1,335.0** **66.3**	**1,766.0** **87.9**	**2,270.0** **113.0**	**2,473.0** **123.1**

LATIN AMERICA

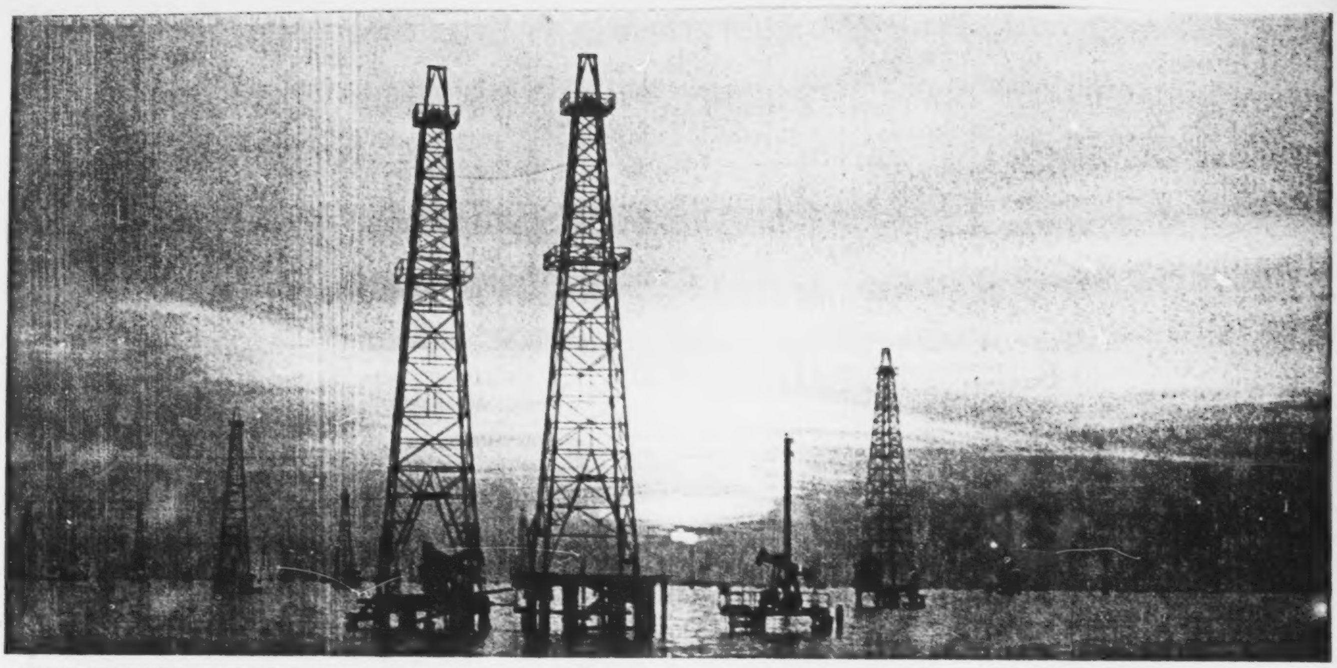
Upper figures = 1,000 b d
Lower figures = million t y

	1940	1950	1960	1965	1970	1972	1973	1974	1975	1976	1977	1978	1979	1980
Argentina	56.3 2.8	64.0 3.2	171.9 8.6	269.3 13.4	382.9 19.1	433.0 21.6	418.0 20.8	414.0 20.6	396.0 19.7	398.0 19.8	431.0 21.5	453.0 22.6	467.0 23.3	487.0 24.2
Bolivia	0.8 ...	1.7 0.1	9.8 0.5	9.2 0.5	16.3 0.8	44.0 2.2	47.0 2.3	49.0 2.4	42.0 2.1	41.0 2.0	35.0 1.7	30.0 1.5	30.0 1.5	30.0 1.5
Brazil	... ...	0.9 ...	80.9 4.0	94.0 4.7	160.5 8.0	165.0 8.2	169.0 8.4	179.0 8.9	174.0 8.7	171.0 8.5	162.0 8.1	160.0 8.0	161.0 8.0	182.0 9.1
Chile	... ...	1.7 0.1	19.8 1.0	34.9 1.7	34.6 1.7	34.0 1.7	32.0 1.6	29.0 1.4	25.0 1.2	24.0 1.2	22.0 1.1	20.7 1.0	23.0 1.1	29.0 1.4
Colombia	69.9 3.5	93.3 4.6	152.7 7.6	210.0 10.0	214.0 10.7	198.0 9.9	199.0 9.9	173.0 8.6	160.0 8.0	147.0 7.3	140.0 7.0	130.0 6.5	124.0 6.2	125.0 6.2
Ecuador	6.4 0.3	7.2 0.4	7.7 0.4	8.0 0.4	4.1 0.2	78.1 3.9	208.8 10.4	177.0 8.8	160.9 8.0	187.8 9.3	183.4 9.1	201.8 10.0	225.0 11.2	222.0 11.1
Guatemala	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	2.0 0.1	5.0 0.2
Mexico	120.3 6.0	198.5 9.9	270.6 13.5	323.1 16.1	430.2 21.4	441.0 22.0	465.0 23.2	653.0 32.5	806.0 40.1	894.0 44.5	981.0 48.8	1,207.0 60.1	1,461.0 72.7	1,936.0 96.4
Peru	33.2 1.6	41.1 2.0	52.6 2.6	63.2 3.1	72.2 3.6	67.0 3.3	69.0 3.4	76.0 3.8	73.0 3.6	75.0 3.7	90.0 4.5	150.0 7.5	195.0 9.7	191.0 9.5
Trinidad & Tobogo	60.9 3.0	56.5 2.8	115.7 5.8	133.9 6.7	139.8 7.0	142.0 7.1	164.0 8.2	178.0 8.9	205.0 10.2	224.0 11.2	230.0 11.5	240.0 12.0	215.0 10.7	211.0 10.5
Venezuela	507.0 25.2	1,498.0 74.6	2,846.1 141.7	3,472.9 172.9	3,708.0 184.7	3,219.9 160.3	3,366.0 167.6	2,976.3 148.2	2,346.2 116.8	2,294.4 114.3	2,237.9 111.4	2,165.5 107.8	2,356.0 117.3	2,167.0 107.9
Total	**854.8** **42.4**	**1,962.9** **97.7**	**3,727.8** **185.7**	**4,609.5** **229.5**	**5,162.6** **257.2**	**4,822.0** **240.2**	**5,137.8** **255.8**	**4,904.3** **244.1**	**4,388.1** **218.4**	**4,456.4** **221.8**	**4,512.3** **224.7**	**4,758.0** **237.0**	**5,259.0** **261.8**	**5,586.0** **278.1**

AFRICA

Upper figures = 1,000 b d
Lower figures = million t y

	1940	1950	1960	1965	1970	1972	1973	1974	1975	1976	1977	1978	1979	1980
Algeria	... ...	... ...	182.7 9.1	551.6 27.5	1,029.1 51.2	1,062.3 52.9	1,097.3 54.6	1,008.6 50.2	982.6 48.9	1,075.1 53.5	1,152.3 57.4	1,161.2 57.8	1,175.0 58.5	1,016.0 50.6
Angola (inc. Cabinda)	... ...	... ...	1.3 0.1	13.0 0.6	13.7 0.7	140.0 7.0	154.0 7.7	169.0 8.4	166.0 8.3	108.0 5.4	195.0 9.7	130.0 6.5	147.0 7.3	150.0 7.5
Cameroon	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	10.0 0.5	34.0 1.7	58.0 2.9
Congo	... ...	... ...	... ...	... ...	... ...	0.7 ...	42.0 2.1	32.0 1.6	38.0 1.9	39.0 1.9	35.0 1.7	28.0 1.4	57.0 2.8	56.0 2.8
Egypt	18.1 0.9	44.9 2.2	61.6 3.1	122.7 6.1	327.3 16.3	212.0 10.6	165.0 8.2	144.0 7.2	230.0 11.5	328.0 16.3	413.0 20.6	464.0 23.1	526.0 26.2	596.0 29.7
Gabon	... ...	... ...	16.1 0.8	25.2 1.3	108.8 5.4	125.2 6.2	150.2 7.5	201.5 10.0	223.0 11.1	222.8 11.1	222.0 11.1	208.7 10.4	204.0 10.2	180.0 9.0
Libya	... ...	... ...	... ...	1,220.0 60.8	3,318.0 165.2	2,239.4 111.5	2,174.9 108.3	1,521.3 75.8	1,479.8 73.7	1,932.6 96.2	2,063.4 102.8	1,982.5 98.7	2,066.0 102.9	1,785.0 88.9
Nigeria	... ...	... ...	17.3 0.9	272.2 13.6	1,083.3 53.9	1,815.7 90.4	2,054.3 102.3	2,255.0 112.3	1,783.2 88.8	2,066.8 102.9	2,085.1 103.8	1,897.0 94.5	2,303.0 114.7	2,057.0 102.4
Tunisia	... ...	... ...	3.0 0.1	3.6 0.2	87.7 4.4	83.0 4.1	83.0 4.1	88.0 4.4	95.0 4.7	73.0 3.6	87.0 4.3	100.0 5.0	100.0 5.0	110.0 5.5
Zaire	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	20.0 1.0	24.0 1.2	20.0 1.0	21.0 1.0	20.0 1.0
Others	... ...	0.8 ...	3.0 0.1	3.6 0.2	1.5 0.1	0.3 ...	1.0 ...	0.9 ...	0.7 ...	0.1 ...	0.4 ...	0.1 ...	5.0 0.2	4.0 0.2
Total	**18.1** **0.9**	**45.7** **2.2**	**285.0** **14.2**	**2,211.9** **110.3**	**5,969.4** **297.2**	**5,678.6** **282.8**	**5,921.7** **294.8**	**5,420.3** **269.9**	**4,998.3** **248.9**	**5,865.4** **291.9**	**6,277.2** **312.6**	**6,001.5** **298.9**	**6,637.0** **330.5**	**6,032.0** **300.3**



LAKE MARACAIBO, ONE OF THE OLDEST PRODUCING AREAS IN LATIN AMERICA, IS STILL ONE OF THE REGION'S ACTIVITY HOT SPOTS. NEW RESERVES ARE STILL BEING FOUND, PRIMARILY IN THE DEEP CRETACEOUS.

NORTH AMERICA

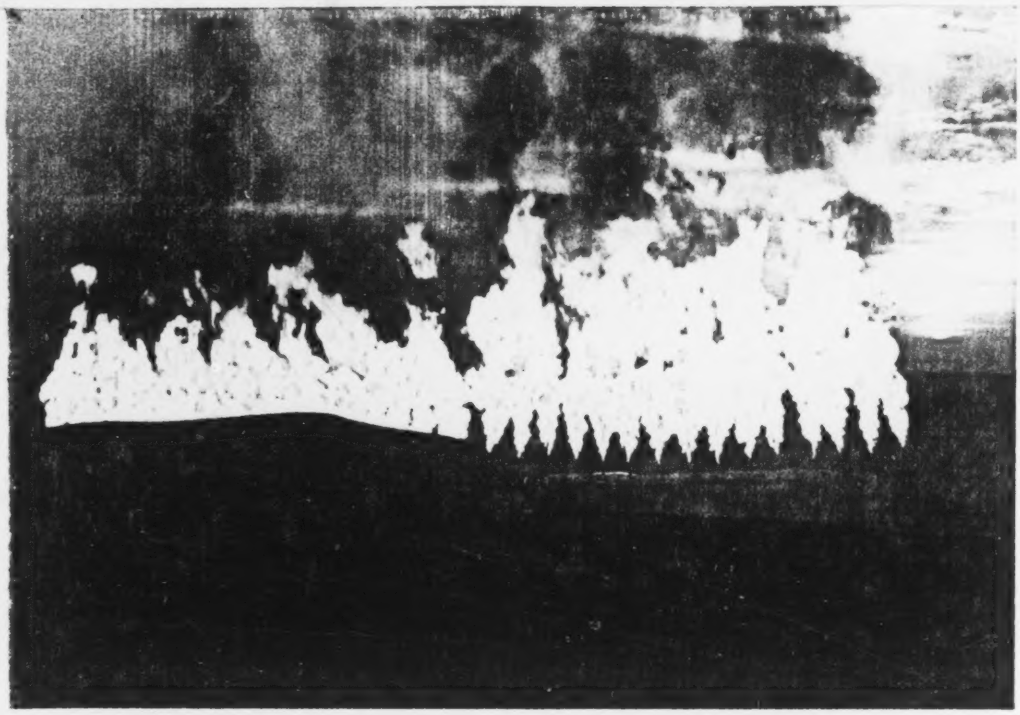
Upper figures = 1,000 b/d
Lower figures = million t/y

	1940	1950	1960	1965	1970	1972	1973	1974	1975	1976	1977	1978	1979	1980
Canada	23.5 1.2	79.6 4.0	525.6 26.2	801.4 39.9	1,263.6 62.9	1,535.0 76.4	1,798.0 89.5	1,689.0 84.1	1,426.0 71.0	1,335.0 66.5	1,321.0 65.8	1,324.0 65.9	1,496.0 74.5	1,412.0 70.3
United States	3,707.4 184.6	5,407.1 269.3	7,054.6 351.3	7,804.1 388.6	9,630.0 479.6	9,451.0 470.7	9,189.0 457.6	8,774.0 436.9	8,374.0 417.0	8,132.0 405.0	8,245.0 410.6	8,701.0 433.3	8,544.0 425.4	8,569.0 426.7
Total	**3,730.9** **185.8**	**5,486.7** **273.3**	**7,580.2** **377.5**	**8,605.5** **428.5**	**10,893.6** **542.5**	**10,986.0** **547.1**	**10,987.0** **547.1**	**10,463.0** **521.0**	**9,800.0** **488.0**	**9,467.0** **471.5**	**9,566.0** **476.4**	**10,025.0** **499.2**	**10,040.0** **499.9**	**9,981.0** **497.0**
Total non-Communist	**5,132.2** **255.3**	**9,558.1** **475.8**	**17,737.5** **883.3**	**24,850.1** **1,237.5**	**37,105.5** **1,847.9**	**41,877.0** **2,085.0**	**45,889.7** **2,285.0**	**45,306.9** **2,255.5**	**41,539.8** **2,068.3**	**45,301.4** **2,255.7**	**46,775.6** **2,329.1**	**46,448.8** **2,313.1**	**48,585.0** **2,419.0**	**45,182.0** **2,249.6**

COMMUNIST AREAS

Upper figures = 1,000 b/d
Lower figures = million t/y

	1940	1950	1960	1965	1970	1972	1973	1974	1975	1976	1977	1978	1979	1980
Bulgaria	... ...	... ...	4.0 0.2	4.6 0.2	6.7 0.3	5.0 0.2	3.8 0.2	2.9 0.1	2.4 0.1	2.4 0.1	2.6 0.1	5.1 0.3	5.3 0.3	6.0 0.3
China	... ...	4.0 0.2	100.0 5.0	220.0 11.0	500.0 24.9	800.0 39.8	1,138.0 56.7	1,364.0 67.9	1,542.0 76.8	1,736.0 86.5	1,874.0 93.3	2,090.4 104.1	2,130.5 106.1	2,124.5 105.8
Czechoslovakia	... ...	0.8 ...	2.7 0.1	3.9 0.2	4.1 0.2	3.8 0.2	3.4 0.2	3.0 0.1	2.8 0.1	2.6 0.1	2.5 0.1	2.3 0.1	2.2 0.1	1.9 0.1
German Dem. Rep.	... ...	1.0 ...	1.0 ...	1.0 ...	1.2 0.1	6.0 0.3	4.0 0.2	4.0 0.2	4.0 0.2	10.0 0.5	10.0 0.5	10.0 0.5	10.0 0.5	10.0 0.5
Hungary	... ...	10.1 0.5	24.3 1.2	36.1 1.8	38.7 1.9	39.5 2.0	39.8 2.0	39.9 2.0	40.1 2.0	43.0 2.1	44.0 2.2	44.1 2.2	40.7 2.0	40.0 2.0
Poland	... ...	3.3 0.2	3.9 0.2	6.8 0.3	8.5 0.4	6.9 0.3	7.8 0.4	11.0 0.5	11.1 0.6	9.1 0.5	7.3 0.4	7.3 0.4	6.6 0.3	6.6 0.3
Romania	... ...	87.7 4.4	231.0 11.5	252.4 12.6	268.6 13.4	289.2 14.4	289.2 14.4	296.0 14.7	293.0 14.6	295.2 14.7	294.2 14.7	275.6 13.7	247.0 12.3	230.9 11.5
U.S.S.R.*	624.9 31.1	760.6 37.9	2,969.1 147.9	4,877.3 242.9	7,089.2 353.0	8,041.0 400.4	8,615.2 429.0	9,215.8 458.9	9,855.5 490.8	10,435.3 519.7	10,959.8 545.8	11,476.6 571.5	11,758.5 585.6	12,108.5 603.0
Others	... ...	2.7 0.1	14.9 0.7	19.0 0.9	37.1 1.8	36.6 1.8	36.6 1.8	36.6 1.8	36.6 1.8	50.0 2.5	50.0 2.5	50.0 2.5	50.0 2.5	50.0 2.5
Total	**624.9** **31.1**	**870.2** **43.3**	**3,350.9** **166.8**	**5,421.1** **269.9**	**7,954.1** **396.0**	**9,228.0** **459.4**	**10,137.8** **504.9**	**10,973.2** **546.2**	**11,787.5** **587.0**	**12,583.6** **626.7**	**13,244.4** **659.6**	**13,961.4** **695.3**	**14,250.8** **709.7**	**14,578.4** **726.0**
*Includes gas liquids														
World Total	**5,757.1** **286.4**	**10,428.3** **519.1**	**21,088.4** **1,050.1**	**30,271.2** **1,507.4**	**45,059.6** **2,243.9**	**51,105.0** **2,544.4**	**56,027.5** **2,789.9**	**56,280.1** **2,801.7**	**53,327.3** **2,655.3**	**57,885.0** **2,882.4**	**60,020.0** **2,988.7**	**60,410.2** **3,008.4**	**62,835.8** **3,128.7**	**59,760.4** **2,975.6**



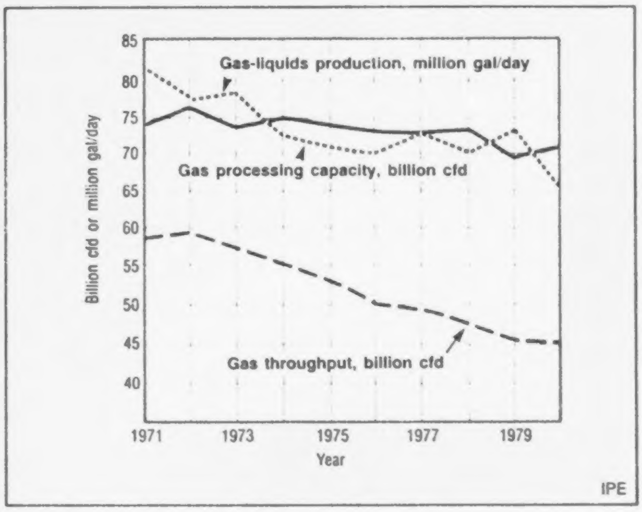
World oil consumption

Upper figures = 1,000 b/d
Lower figures = million t/y

	1977	1978	1979
U.S.A.	17,925 865.9	18,365 888.8	17,930 862.9
Canada	1,810 85.6	1,835 86.9	1,895 89.9
Total North America	19,735 951.5	20,200 975.7	19,825 952.8
Latin America	3,990 192.1	4,180 201.4	4,395 211.8
Total Western Hemisphere	**23,925** 1,143.6	**24,380** 1,177.1	**24,220** 1,164.6
Austria	225 11.1	240 12.0	250 12.4
Belgium & Luxembourg	565 28.0	585 29.0	595 29.4
Denmark	330 16.6	325 16.1	325 16.1
Finland	250 12.5	250 12.5	265 13.3
France	2,350 114.6	2,445 119.0	2,430 118.1
Germany, Fed. Rep.	2,855 137.1	2,960 142.7	3,045 146.9
Greece	215 10.8	230 11.7	240 11.9
Ireland	115 5.7	120 6.0	130 6.2
Italy	1,920 96.1	2,015 99.8	2,045 101.2
Netherlands	770 37.6	780 37.5	800 38.5
Norway	180 8.9	175 8.7	185 9.0
Portugal	150 7.1	150 7.4	160 7.7
Spain	930 45.5	965 47.0	970 47,3
Sweden	560 28.1	535 26.7	565 28.4
Switzerland	270 13.1	280 13.4	270 12.9
United Kingdom	1,885 92.0	1,930 94.0	1,935 94.1
Yugoslavia	280 13.9	295 14.8	315 15.8
Other	35 2.0	35 2.1	35 2.1
Total Western Europe	13,885 680.7	14,315 700.4	14,560 711.3
Middle East	1,905 95.5	1,970 98.6	1,795 90.0
Africa	1,175 57.2	1,265 61.4	1,310 63.5
South Asia	705 34.5	760 37.1	755 36.7
Southeast Asia	1,915 95.8	2,110 105.5	2,345 116.9
Japan	5,350 260.4	5,420 262.7	5,495 265.4
Australasia	800 38.0	795 37.6	800 38.0
U.S.S.R.	8,025 395.0	8,480 419.2	8,925 441.0
Eastern Europe	1,955 95.0	2,040 98.9	2,085 101.1
China	1,630 82.0	1,705 84.7	1,835 91.1
Total Eastern Hemisphere	**37,345** **1,834.1**	**38,860** **1,906.1**	**39,905** **1,955.0**
World excl. U.S.S.R. China & E. Europe	49,460 2,405.7	51,015 2,480.4	51,280 2,486.4
World Total	**61,070** **2,977.7**	**63,240** **3,083.2**	**64,125** **3,119.6**

Source: British Petroleum
South Asia—Afghanistan, Bangladesh, Burma, India, Pakistan, Sri Lanka
Southeast Asia—Brunei, Malaysia, Kampuchea, Indonesia. Hong Kong, Korea, Laos, Philippines, Singapore, Thailand, Taiwan, Viet Nam
Australasia—Australia, Papua New Guinea, New Zealand, SW Islands

U.S. gas processing 1



U.S. gas processing plants 2

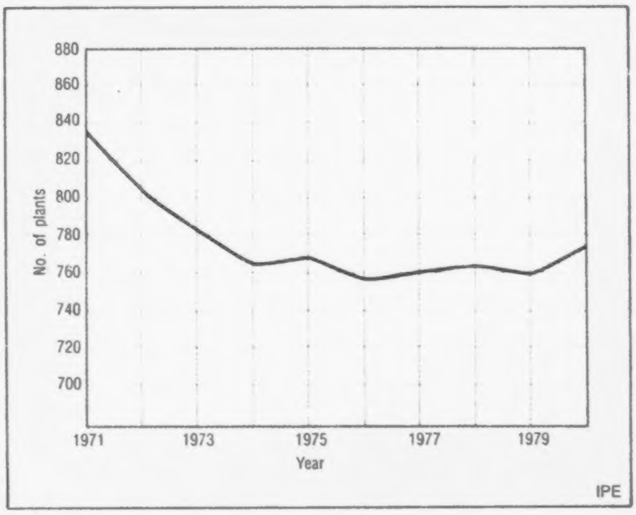


Table 1

U.S. gas liquids production rate

	—Production, 1,000 gal/day— 1978	1979	Change	% Change
Ethane	7,089.2	6,771.6	−317.6	−4.5
Propane	10,908.0	11,463.1	+554.9	+5.1
Isobutane	1,505.7	1,389.6	−116.1	−7.7
Butanes	4,321.5	4,795.9	+474.4	+11.0
LP-gas mix	1,289.1	1,810.4	+521.3	+40.4
Raw NGL mix	36,863.5	28,300.1	−8,563.4	−23.2
Debut. natural gasoline	5,121.7	5,234.8	+113.1	+2.2
Other	5,701.0	5,959.2	+258.2	+4.5
Total	**72,799.7**	**65,724.7**	**−7,075.0**	**−9.7**

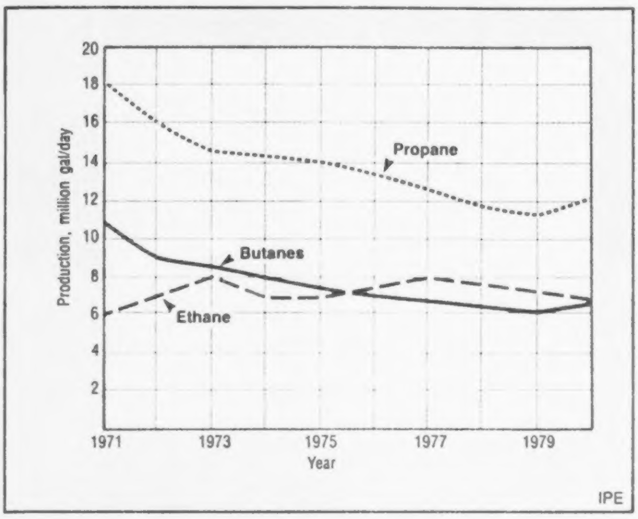
Table 2

Gas processing trends

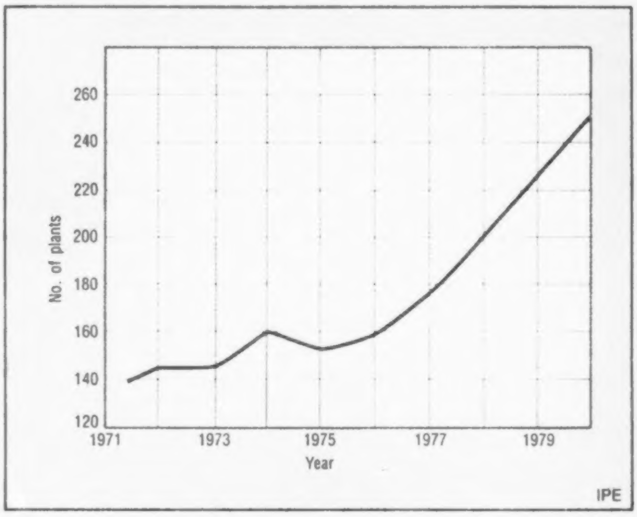
	1978	1979	Change	%Change
U.S.				
Gas throughput, MMcfd	44,974.2	44,939.9	34.3	−0.08
Gas liquids production, 1,000 gal/day	72,799.7	65,724.7	7,075	−9.7
Proved gas reserves, billion cu ft*	200,301.7	194,916.6	5,385	−2.7
Canada				
Gas throughput, MMcfd	8,808.0	12,564.8	3,756.8	+42.7
Gas liquids production, 1,000 gal/day	9,180.9	14,241.4	5,060.5	+55.1
Proved gas reserves, billion cu ft*	59,000	85,500	26,500	+44.9

*As of Jan. 1, 1980.

U.S. key gas-products production 3



Canadian gas-processing plants 4



Canadian gas 5

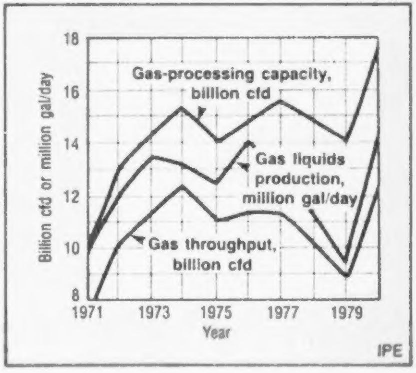


Table 3

Major U.S. gas-processing states (As of Jan. 1, 1980)

	Gas through-put, MMcfd*	% of total through-put	Gas capacity MMcfd	% of total capacity	No. of plants	% of total plants	NGL production 1,000 gal/day*	% of NGL pro-duction
Louisiana	15,307.2	34.1	24,566.7	34.5	103	13.3	15,229.7	23.2
Texas	14,593.2	32.5	24,646.9	34.6	356	46.1	26,239.0	40.0
Kansas	3,879.7	8.6	5,320.9	7.5	26	3.4	3,607.1	5.5
Oklahoma	2,943.3	6.5	4,267.7	5.9	86	11.1	5,411.7	8.2
New Mexico	2,730.1	6.1	3,632.1	5.1	35	4.5	4,385.9	6.7
Wyoming	769.0	1.7	1,357.7	1.9	40	5.2	942.4	1.4
Subtotal	**40,222.5**	**89.5**	**63,792.0**	**89.5**	**646**	**83.6**	**55,815.8**	**85.0**
Other states	4,717.4	10.5	7,400.6	10.5	126	16.4	9,908.9	15.0
Total	**44,939.9**	**100.0**	**71,192.6**	**100.0**	**772**	**100.0**	**65,724.7**	**100.0**

*Twelve month average.

Table 4

World's major gas reserves (As of Jan. 1, 1980)

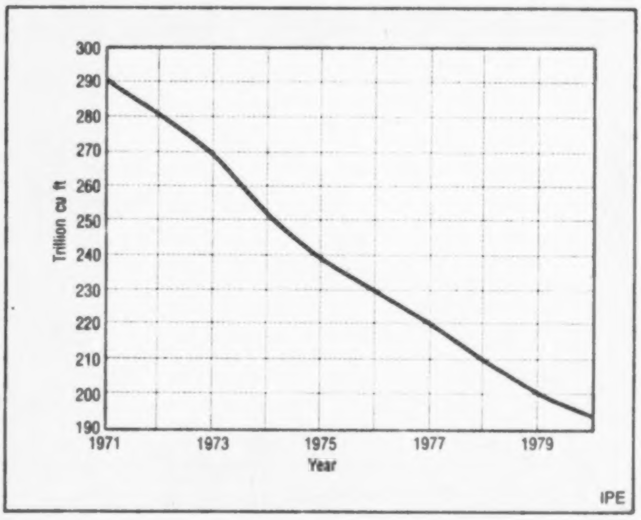
	Estimated proved reserves, 10^9 cu ft	Percent of world proved reserves
U.S.S.R.	900,000	35.0
Iran	490,000	19.0
United States	194,000	7.5
Algeria	132,000	5.1
Saudi Arabia	93,230	3.6
Canada	85,500	3.3
Qatar	60,000	2.3
Netherlands	59,500	2.3
Mexico	59,000	2.3
Venezuela	42,800	1.7
Nigeria	41,400	1.6
Australia	31,000	1.2
Kuwait	31,000	1.2
Iraq	27,500	1.1
China	25,000	1.0
Subtotal	**2,271,930**	
Others	301,708	11.7
Total	**2,573,241**	**100.0**

Table 5

World's major gas-producing countries

Country	1979 gas pro-duction, 10^9 cu ft	Percent of world total pro-duction
United States	19,999.4	35.0
U.S.S.R.	14,367.1	25.0
Canada	3,646.5	6.4
China	2,832.7	5.0
Netherlands	2,717.8	4.8
United Kingdom	1,965.7	3.4
Romania	1,210.5	2.1
Iran	913.3	1.6
Mexico	826.3	1.4
Indonesia	816.3	1.4
Italy	533.6	0.9
Norway	414.9	0.7
Venezuela	406.0	0.7
Chile	306.4	0.5
Brunei-Malaysia	302.7	0.5
Algeria	301.5	0.5
Subtotal	**51,560.7**	**90.1**
Others	5,633.9	9.9
Total	**57,194.6**	**100.0**

U.S. proved natural-gas reserves 6



U.S. proved gas-liquids reserves 7

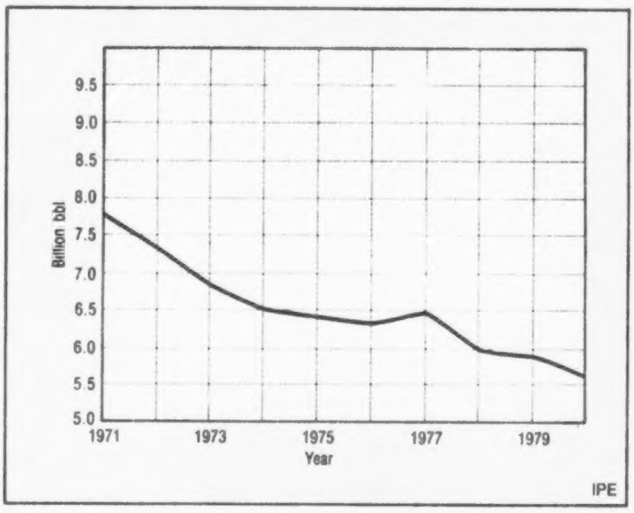


Table 6

World gas-production trends (Billion cu ft)

	1973	1974	1975	1976	1977	1978	1979	% change, 1979 vs. 1978
United States	22,854.0	22,376.9	20,464.9	19,992.8	20,337.5	19,922.4	19,999.4	+ 0.4
Canada	3,241.4	3,341.7	3,422.2	3,157.2	3,301.4	3,133.1	3,646.5	+16.4
Western Europe	5,215.2	5,766.8	6,042.6	6,239.1	6,290.7	4,793.7	6,866.8	+43.2
Latin America	3,443.2	3,082.1	1,732.0	2,044.4	2,116.3	2,533.5	2,610.0	+ 3.0
Middle East	1,926.0	1,046.3	2,057.8	2,003.1	2,789.7	2,640.4	1,624.7	−38.5
Asia-Pacific	627.9	740.2	816.6	982.0	1,267.6	1,640.0	1,827.9	+11.5
Africa	340.7	283.0	464.0	1,628.3	1,780.7	1,558.1	1,027.9	−34.0
Communist Areas	10,354.5	10,837.3	12,478.2	14,360.6	15,999.8	17,638.3	19,591.4	+11.1
World Total	**48,002.9**	**47,474.7**	47,478.3	**50,407.5**	**53,883.7**	**53,859.5**	**57,194.6**	+ **6.2**

Table 7

Worldwide gas-processing-plant construction* (As of April 1980)

Area	1979	1980	Change
United States	33	41	+8
Canada	10	11	+1
Latin America	13	13	0
Europe	6	4	−2
Middle East	14	11	−3
Africa	12	11	−1
Asia-Pacific	3	5	+2
Total	**91**	**96**	**+5**

*Planned, under construction, or expansion.

Gas production (billions cu ft)

	1973	1974	1975	1976	1977	1978	1979	1980
WESTERN HEMISPHERE								
Argentina	241.9	278.4	273.4	280.2	250.0	252.2	241.7	296.9
Bolivia	151.5	152.2	111.9	143.5	118.3	129.7	122.5	632.1
Brazil	48.1	47.3	56.2	57.2	61.0	84.8	77.0	84.7
Canada	3,241.4	3,341.7	3,422.2	3,157.2	3,301.4	3,143.2	3,646.5	2,668.3
Chile	238.2	212.3	138.9	175.8	208.9	314.0	306.4	113.5
Colombia	126.2	105.8	73.7	74.8	109.7	127.0	116.3	131.0
Ecuador	6.4	5.3	6.1	14.8	21.0	100.9	159.4	101.8
Mexico	686.2	686.4	771.5	790.8	745.3	876.8	974.9	1,184.4
Peru	65.9	73.3	44.5	25.5	59.3	66.8	41.2	40.4
Trinidad	137.4	65.0	50.8	85.8	150.0	157.0	164.6	188.6
United States	22,854.0	22,376.9	20,464.9	19,992.8	20,337.5	19,892.9	19,999.4	20,267.6
Venezuela	1,741.4	1,456.5	205.0	396.0	392.8	400.0	406.0	518.0
Total	**29,538.6**	**28,801.1**	**25,619.1**	**25,194.4**	**25,755.2**	**25,545.3**	**26,255.9**	**26,227.3**
EUROPE								
Austria	72.2	87.6	70.7	77.8	82.3	45.7	79.2	60.6
France	258.5	303.6	267.2	250.7	256.8	233.6	239.2	264.4
West Germany	590.1	674.1	690.4	544.0	907.7	645.6	826.3	738.6
Italy	486.9	572.2	532.9	562.1	448.6	538.8	533.6	524.6
Netherlands	2,589.7	2,867.5	3,198.7	3,542.7	2,932.5	1,624.5	2,717.8	2,799.6
Norway	....	....	....	....	66.2	350.3	414.9	698.2
Spain	....	....	....	....	31.8	24.6	25.6	12.6
United Kingdom	1,151.6	1,207.2	1,231.1	1,202.3	1,499.9	1,258.0	1,965.7	2,308.1
Yugoslavia	66.2	54.6	51.6	59.5	64.9	68.4	64.5	63.1
Total	**5,215.2**	**5,766.8**	**6,042.6**	**6,239.1**	**6,290.7**	**4,789.5**	**6,866.8**	**7,469.8**
MIDDLE EAST								
Abu Dhabi	NA	NA	NA	NA	136.8	93.4	40.1	115.5
Bahrain	20.3	3.3	3.1	2.2	109.3	117.0	65.0	90.0
Dubai	....	....	....	....	31.0	30.6	23.4	23.8
Iran	1,689.3	906.2	1,749.7	1,699.6	1,756.1	1,767.1	913.3	292.0
Iraq	155.3	129.3	122.2	113.8	141.0	115.6	48.8	18.0
Israel	3.1	4.2	2.3	1.9	2.3	1.5	2.1	1.2
Kuwait	50.6	1.6	175.2	97.6	186.1	186.7	205.5	291.3
Oman	....	....	5.3	88.0	129.5	107.1	35.9	12.0
Qatar	7.4	1.7	....	....	70.5	46.5	27.1	38.3
Saudi Arabia	NA	NA	NA	NA	121.0	102.1	208.6	310.2
Syria	NA	NA	NA	NA	69.4	56.5	33.1	17.0
Turkey	NA	NA	NA	NA	36.7	36.5	21.8	12.0
Total	**1,926.0**	**1,046.3**	**2,057.8**	**2,003.1**	**2,789.7**	**2,660.6**	**1,624.7**	**1,221.3**
ASIA-PACIFIC								
Afghanistan	80.7	92.8	51.3	108.3	121.6	102.1	83.9	70.1
Australia	149.3	160.1	182.8	209.3	236.7	242.2	254.1	275.3
Burma	6.7	6.1	4.7	5.0	5.9	5.3	5.4	12.2
Brunei-Malaysia	....	5.1	18.8	52.5	187.4	326.0	302.7	318.4
India	18.1	18.5	36.0	41.5	51.9	57.2	55.1	74.9
Indonesia	129.1	160.8	202.6	248.6	351.9	564.9	816.3	1,028.4
Japan	87.2	95.5	95.6	97.7	97.7	97.0	86.6	90.9
New Zealand	....	13.2	26.5	53.3	73.0	61.6	42.1	45.0
Pakistan	128.1	141.9	155.3	145.6	91.3	164.4	180.5	600.0
Taiwan	28.7	46.2	43.0	20.2	50.2	24.5	1.2	43.2
Total	**627.9**	**740.2**	**816.6**	**982.0**	**1,267.6**	**1,645.2**	**1,827.9**	**2,558.4**
AFRICA								
Algeria	19.7	20.6	19.5	256.9	284.5	329.5	301.5	517.0
Angola	24.2	40.7	71.7	47.2	81.6	62.6	17.01.2	
Congo	2.9	6.1	6.6	6.7	7.1	4.0	....	....
Egypt	30.7	49.7	50.6	65.0	93.0	105.8	90.4	31.0
Gabon	1.6	15.2	16.2	2.3	2.9	2.8	3.5	7.1
Libya	43.2	41.0	133.7	439.2	488.6	363.8	162.0	132.8
Morocco	37.2	29.0	3.2	9.3	29.6	11.6	2.9	2.0
Nigeria	60.4	60.0	91.4	632.6	717.4	594.9	365.6	187.6
Tunisia	20.8	20.7	71.1	169.1	76.0	89.3	85.0	6.0
Total	**340.7**	**283.0**	**464.0**	**1,628.3**	**1,780.7**	**1,564.3**	**1,027.9**	**884.7**
COMMUNIST								
China	229.5	264.7	300.0	335.4	413.0	502.2	512.2	483.6
Romania	1,302.6	935.7	935.0	854.6	1,005.5	1,215.6	1,210.5	1,184.6
USSR	8,262.7	9,213.3	10,201.7	11,331.3	12,395.2	13,068.1	14,336.7	15,362.6
Other	631.1	500.8	522.2	741.0	812.1	968.9	1,181.1	878.0
Total	**10,425.9**	**10,914.5**	**11,958.9**	**13,262.3**	**14,625.8**	**15,754.8**	**17,240.5**	**17,908.8**
WORLD TOTAL	**48,074.3**	**47,551.9**	**46,959.0**	**49,309.2**	**52,509.7**	**51,959.7**	**54,843.7**	**56,270.3**

WORLDWIDE GAS PROCESSING

Capacities as of January 1, 1980, and average production

State	No. plants	MMcfd Gas capacity	MMcfd Gas throughput	Production—1,000 gal/day (Average based on the past 12 months) Ethane	Propane	Isobutane	Normal or unsplit butane	LP-gas mix	Raw NGL mix	Debut. nat. gaso.	Other	Total products
Alabama	5	182.0	138.3		485.9		382.8			249.6	758.2	1,876.5
Alaska	2	60.0	44.0		12.1			63.8	32.4			108.3
Arkansas	4	160.0	72.0		22.3	4.6	19.2		55.2	23.2	2.0	126.5
California	37	1,254.5	498.0		291.2	28.0	73.0	41.8	245.2	144.0		823.2
Colorado	27	799.6	560.4		152.7		77.2	18.1	829.0	70.1	26.7	1,173.8
Florida	3	899.0	786.4	483.4	399.2		299.8		118.6	120.8		1,421.8
Illinois	2	551.5	408.8	492.1	390.6	35.2	76.1		2.6	31.6		1,028.2
Indiana	1	5.0	0.7		1.1				1.9			3.0
Kansas	26	5,320.9	3,879.7	432.0	1,076.0	119.8	417.6		1,263.4	273.8	24.5	3,607.1
Kentucky	2	898.9	654.0								504.3	504.3
Louisiana	103	24,566.7	15,307.2	1,537.9	2,013.1	509.5	683.9	464.0	7,907.6	1,225.9	887.8	15,229.7
Michigan	8	655.0	472.6		49.3	0.5	3.5	24.9	1,086.2	4.2	184.1	1,352.7
Mississippi	5	906.0	478.2		14.6		15.5	4.6	32.2	1.6	6.0	74.5
Montana	8	62.9	28.3		26.8	9.2	2.0		43.7			81.7
Nebraska	2	23.0	3.9		5.8		1.9		2.2	2.2		12.1
New Mexico	35	3,632.1	2,730.1	158.2	375.5	22.3	120.9	10.9	3,454.4	68.3	175.4	4,385.9
North Dakota	7	181.7	106.5		124.1		83.2	8.0	29.0	41.4	8.0	293.7
Oklahoma	86	4,267.7	2,943.3	135.8	707.9	88.8	267.5	319.2	2,774.6	260.9	857.0	5,411.7
Texas	356	24,646.9	14,593.2	3,355.2	4,736.2	551.9	2,029.5	826.3	9,729.5	2,489.9	2,520.5	26,239.0
Utah	9	393.5	227.7		120.4		36.8	6.4	121.8	75.7		361.1
West Virginia	4	368.0	237.6	177.0	95.0	18.0	33.0		309.5	35.0		667.5
Wyoming	40	1,357.7	769.0		363.3	1.8	172.5	22.4	261.1	116.6	4.7	942.4
Total	**772**	**71,192.6**	**44,939.9**	**6,771.6**	**11,463.1**	**1,389.6**	**4,795.9**	**1,810.4**	**28,300.1**	**5,234.8**	**5,959.2**	**65,724.7**

Country	No. plants	MMcfd Gas capacity	MMcfd Gas throughput	Production—1,000 gal/day (Average based on the past 12 months) Ethane	Propane	Isobutane	Normal or unsplit butane	LP-gas mix	Raw NGL mix	Debut. nat. gaso.	Other	Total products
Abu Dhabi	1	450.0	270.0		302.6		213.4			90.4		606.4
Algeria	4	5,335.2	4,268.2					632.8			5,449.2	6,082.0
Argentina	5	289.6	215.9		71.0	5.1	62.4			44.7		183.2
Australia	1	810.0	406.0	431.0	572.0		329.0				591.0	1,923.0
Austria	2	4.0	2.5						0.8			0.8
Bahrain	1	110.0	110.0	56.3	133.0	21.5	76.9			183.8		471.5
Bolivia	2	474.0	380.0						32.6			32.6
Brazil	2	120.0	132.0						231.4			231.4
Canada												
Alberta	236	15,094.2	11,083.8	3,164.5	2,307.1	457.6	1,000.1	780.9	2,204.9	3,573.8	479.3	13,968.2
British Columbia	5	1,676.4	1,361.6		58.2	68.8	59.0			5.7		191.7
Northwest Territories	1	189.0	59.0									
Saskatchewan	9	162.5	60.4		45.7	5.0	16.9		0.5	1.0	12.4	81.5
Chile	2	510.0	418.0		194.3		126.6			108.2		429.1
China Republic (Taiwan)	3	188.1	152.3	92.0		0.7		119.6		24.7		237.0
Dominician Republic	1	2.6	1.4								0.5	0.5
Ecuador	2							2.4	9.1			11.5
Egypt	4	553.0	307.5					60.2		619.0	112.0	791.2
Germany	5	542.9	451.0									
Hungary	10	758.1	507.6		167.2	9.7	151.1		31.9	242.7	245.7	848.3
Indonesia	2	360.0	205.0		462.0		294.0					756.0
Italy	8	4,167.0	2,726.0					120.0		1,011.6		1,131.6
Kuwait	2	1,680.0	848.0		2,107.8		1,251.7		799.3			4,158.8
Libya	7	1,851.0	1,227.0						37.8	5,577.0	551.0	6,165.8
Mexico	10	3,457.0	2,463.5	1,262.5	4,980.0							6,242.5
Netherlands	1	330.0	165.0								7.0	7.0
New Zealand	1	96.0	54.0		11.5		0.3			5.3		17.1
Pakistan	2	695.0	639.4								3.1	3.1
Peru	2	84.0	43.6		2.0		1.0	3.4		49.7	3.5	59.6
Saudi Arabia	3	1,300.0	1,040.0						1,304.0			1,304.0
United Kingdom	3	2,210.0	1,250.0							1,572.5	76.2	1,648.7
Venezuela	16	2,644.0	2,014.2	8.4	236.3	17.1	158.7	402.5	1,943.5	157.4	3.0	2,926.9
Total	**353**	**46,143.6**	**32,862.9**	**5,014.7**	**11,650.7**	**585.5**	**3,741.1**	**2,121.8**	**6,595.8**	**13,267.5**	**7,533.9**	**50,511.0**

To arrive at more accurate totals, natural-gas throughput and liquids production are estimated at 80% capacity in those cases where only capacities are available. This explains apparent discrepancies in the addtion of some columns. The letters NR mean no response. *Indicates cycling operations. The symbol < denotes less than 100 gal/day.

Products listed in the last column are identified by numbers: 1—isopentane, 2—upgraded motor fuel, 3—diesel, 4—kerosine, 5—ethane-propane mix, 6—solvent naphtha, 7—jet fuel, 8—normal pentane, 9—residuum, bottoms, 10—distillate, fuel oil, 11—condensate, 12—gas oil.

The process methods in the third column are identified by the following numbers: 1—absorption, 2—refrigerated absorption, 3—refrigeration, 4—compression, 5—adsorption, 6—cryogenic—Joule-Thomson, 7—cryogenic-expander.

Figures in parenthesis do not represent primary production, and are not added in state totals.

Since this compilation includes cycling plants reprocessing pipeline gas, totals shown here for gas throughput do not relate directly to government data on total gas processed, or sold. Similarly, liquids production figures are based on yearly average and do not necessarily reconcile with government data.

Company, plant, location	MMcfd Gas capacity	Gas throughput	Process method	Production — 1,000 gal/day (Average based on the past 12 months Ethane	Prop.	Isobut.	Normal or unsplit butane	LP-gas mix	Raw NGL mix	Debut. nat. gaso.	Other
ALABAMA											
Exxon Co. USA—Big Escambia Creek, Escambia Co., 4-1n-7e	40.0	30.0	7		388.8		308.0			237.6	
Getty Oil Co.—Hatter's Pond, Mobile Co., 10-2s-1w	50.0	23.0	2		18.0		15.3				[11]212.2
Phillips Petroleum Co.—Chatom, Washington Co., ne4-29-6n-4w	31.0	NR	3								
Placid Oil Co.—Womack, Choctaw Co., 9-10n-2w	4.0	3.5	3		9.1		9.5			5.0	
Union Oil Co. of California—Chunchula, Mobile Co., 22-1s-2w	57.0	57.0	3		70.0		50.0			7.0	[11]546.0
Total	**182.0**	**138.3**			**485.9**		**382.8**			**249.6**	**758.2**
ALASKA											
Chevron USA Inc.—*Swanson River LTS, Kenai Borough, 4-7n-9w	20.0	18.0	3&4		12.1				32.4		
Marathon Oil Co.—Trading Bay, Kenai Borough, 5-18n-15wsm	40.0	26.0	7					63.8			
Total	**60.0**	**44.0**			**12.1**			**63.8**	**32.4**		
ARKANSAS											
Amoco Production Co.—Chalybeat Springs, Columbia Co., 34-19s-19w	20.0	4.0	3						4.9		
Arkansas Louisiana Gas Co.—Hamilton, Columbia Co., se9-18e-21w	75.0	11.0	3		12.5	4.6	6.3			7.0	[10]2.0
Cities Service Co.—Walker Creek, West Lafayette Co., 29-18s-23w	25.0	25.0	2		9.8		12.9			16.2	
Walker Creek Gasoline Co.—Lafayette Co.	40.0	NR	2						50.3		
Total	**160.0**	**72.0**			**22.3**	**4.6**	**19.2**		**55.2**	**23.2**	**2.0**
CALIFORNIA											
Aminoil USA Inc.—Huntington Beach, Orange Co.	15.0	5.3	3		1.1				10.2		
Inglewood, Los Angeles Co.	25.0	4.1	2		6.8				7.5		
Maricopa, Kern Co.	2.5	1.4	4						0.3		
Arco Oil & Gas Co.—No. Coles Levee No. 8, Kern Co., 32-305-25e MDB&M	190.0	34.0	2		30.3		24.1			14.6	
Ojai Timber No. 18, Ventura Co. Rancho Ojai 36	3.0	5.0	3						1.3		
Chevron USA Inc.—Carpinteria, Santa Barbara Co., 33-4n-25w	23.0	10.4	3		1.6	3.8			5.4		
Gaviota, Santa Barbara Co., 35-5n-32w	30.0	0.2	4						<0.1		
Huntington Beach, Orange Co., 3-6s-11w	3.5	2.2	3						4.2		
Inglewood LTS, Los Angeles, Co., 8-2s-14w	45.0	9.4	3						16.7		
Lost Hills, Kern Co., 4-27s-21e	10.0	5.0	3						3.2		
Murphy-Coyote, Orange Co., 18-3s-10w	5.0	1.5	3						3.9		
One-C, Kern Co., 1-32s-23e	45.0	15.1	1		18.7				34.4		
Seventeen-Z, Kern Co., 17-30s-22e	90.0	52.2	2		57.9				71.5		
Thirty-two Z, Kern Co., 32-30s-29e	7.0	0.6	3						0.5		
Three-P, Kings Co., 3-22s-17e	100.0	14.8	2		16.5		7.3			21.1	
Torrance, Los Angeles Co., 24-4s-14w	3.0	0.9	3						1.4		
Getty Oil Co.—Buena Vista Hills, Kern Co., 8-32s-24e	20.0	8.3	1		6.8				10.9		
Cymric, Kern Co., 26-29-22e	30.0	5.0	1		4.7				6.6		
*Reserve Standard, Kern Co., 17-11n-19w	40.0	4.1	5						0.4		
Ventura Co., 27-3n-23w	20.0	12.6	2		25.5	5.7	13.0		15.2		
Marathon Oil Co.—*South Coles Levee, Kern Co., 3-31s-25e	80.0	71.6	1		33.5	4.7	8.2			20.1	
Petrolane Lomita Gasoline Co.—Harbor, Los Angeles Co.	50.0	20.0	3						3.0		
Signal Hill, Los Angeles Co.	12.0	5.0	3		4.0			25.0			
Santa Fe Energy Co.—Rincon, Ventura Co., 17-3n-24w SBB&M	16.0	4.5	1					10.4		10.0	
Shell Oil Co.—*Kernridge, Kern Co., 27s-20e-26	80.0	41.0	1		3.6	0.3				4.7	
Molino, Santa Barbara Co., 35-5n-31w	45.0	1.5	2		0.9					1.3	
Sun Gas Co.—*Newhall, Los Angeles Co., 27-4n-17w	70.0	27.2	2		12.7				9.2		
Superior Oil Co.—*Rio Bravo, Kern Co., 34&35-28e-25e	4.0	4.0							0.2		
Texaco Inc.†—Honor Rancho, Los Angeles Co., 36-5n-17w-SBBM	18.0	NR	3					0.8			
Schiells Canyon, Ventura Co., 4-4n-19w-SBBM	10.0	NR	3		5.6				11.6		
Union Oil Co. of California—Bell, Los Angeles Co., 6-35-11w	9.0	0.8	NR								
*Coalinga Nose, Fresno Co., 7-20s-16e	46.0	61.5	1		16.3	13.5	8.6			22.3	
Dominguez, Los Angeles Co., 33-3s-9w	20.0	3.8	1		1.9					8.9	
Santa Clara Valley, Ventura Co., 4n-18w	20.0	13.7	3		14.2					7.5	

	MMcfd			Production — 1,000 gal/day (Average based on the past 12 months							
Company, plant, location	Gas capacity	Gas through-put	Process method	Ethane	Prop.	Isobut.	Normal or unsplit butane	LP-gas mix	Raw NGL mix	Debut. nat. gaso.	Other
Santa Maria, Santa Barbara, 24-10n-34w	35.0	12.0	1	....	16.0	....	11.8	....	....	11.2	....
Stearns, Orange Co., 7-3s-9w	20.0	6.9	1		13.7	....	....	....	....	22.3	....
Warren Petroleum Co.—Yowlumne, Kern Co., 2-11n-22w	NR	10.0	3	....	....	....	....	....	30.0	....	....
Total	**1,254.5**	**498.0**		....	**291.2**	**28.0**	**73.0**	**41.8**	**245.2**	**144.0**	....

COLORADO

Company, plant, location	Gas capacity	Gas through-put	Process method	Ethane	Prop.	Isobut.	Normal or unsplit butane	LP-gas mix	Raw NGL mix	Debut. nat. gaso.	Other
Adolph Coors Co.—Wattenberg, Weld Co., 25-1n-68w	8.0	2.6	3						2.9	....	....
Amoco Production Co.—Peoria, Arapahoe Co., 33-4s-60w	10.0	8.6	7		17.9			16.7	17.9		[10]0.1
Spindle, Weld Co., 34-2n-67w	53.0	44.7	7	....	....	....	....	....	268.9	....	[11]18.8
Third Creek, Adams Co., 7-2s-65w	8.0	2.4	3		....	....	....	....	7.9	....	....
Wattenberg, Adams Co., 31-3s-65w	150.0	114.7	7						341.7	....	....
Centennial Gas Co.—Morningside, Weld Co., 9-6n-64w	NR	0.5	3						1.0	....	....
Chevron USA Inc.—Rangely Hagood, Rio Blanco Co.	10.0	5.0	3						30.3	....	....
Conoco Inc.—Fruita, Mesa Co., 34-9s-10w	20.0	16.4	5		7.8		6.0			2.9	....
Crystal Gas Resources Inc.—Roggen, Weld Co., se¼-sw¼-24-2n-63w	21.6	9.4	2						28.0	....	....
Vallery, Morgan Co., se¼-15-3n-59w	3.0	1.7	2		2.4				2.8	....	
Ecological Engineering Systems Inc.—Brighton, Weld Co., se4-se4-28-1n-67w	1.5	1.2	3						4.0		
Cabin Creek, Adams Co., sw4-4nw4-31-35n-59w 6pm	1.0	0.3	3						2.0		....
Lanson Farms, Weld Co., nw4-ne4-35-2n-68w 6pm	1.5	0.8	3						4.0		
Gulf Energy & Development Corp.—Papoose Canyon, Delores Co., 1 mile north of Dove Creek	5.0	4.0	3		1.6				3.0		
Kansas-Nebraska Natural Gas Cl—Yenter, Logan Co., 2-08n-54w	10.0	3.5	2		6.8				7.1		
Koch Industries Inc.—Third Creek, Adams Co., 18-25-65w	25.0	11.1	2						45.2		
Loveland Gas Processing CL—Loveland, Larimer Co.	2.3	NR	3						4.9		
Matrix Land Co.—Piceance Creek, Rio Blanco Co., 15-25-96w	40.0	26.0	2		8.0				8.0		
Northwest Pipeline Corp.—Ignacio, La Plata Co., sw¼-36-34n-9w	300.0	246.6	1		47.9		65.4			58.3	
Phillips Petroleum Co.—Weld Co., nw4-23-2n-63w	15.0	NR	7							....	....
Planet Engineers Inc.—McClave, Kiowa Co., sw4-32-20s-48w	7.5	3.3	2		3.6				2.4		....
Sun Gas Co.—Denver Central, Arapahoe Co., 5-5s-62w	20.0	5.2	2		16.9				11.9		[10]0.9
Dragon Trail, Rio Blanco Co., 35-2s-102w	22.5	12.3	2		11.1		5.1			5.6	....
Texaco Inc.†—Wilson Creek, Rio Blanco Co., 27-3n-94w	10.5	NR	3		22.3				22.5	....	
Toa-American Gas Production Co.—Spindle, Weld Co.	18.0	NR	2		6.9				17.1		6.9
Trend Exploration Ltd.—*Buck Peak, Moffat Co., se4-sw4-9-6n-30w	2.0	1.0	3		0.6			1.4	....	....	
Union Oil Co. of California—Adena, Morgan Co., 12-1n-58w	28.0	2.5	2		3.4		0.7	....	....	3.3	....
Total	**799.6**	**560.4**			**152.7**	..	**77.2**	**18.1**	**829.0**	**70.1**	**26.7**

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†All figures are capacity.

FLORIDA

Company, plant, location	Gas capacity	Gas through-put	Process method	Ethane	Prop.	Isobut.	Normal or unsplit butane	LP-gas mix	Raw NGL mix	Debut. nat. gaso.	Other
Exxon Co. USA—Blackjack Creek, Santa Rosa, 23&4n-29w	9.0	7.0	3						83.6		....
Jay, Santa Rosa Co., 9&43-5n through 29w	90.0	139.4	7	483.4	359.5		195.9		....	120.8	....
Florida Hydrocarbons Co.—Brooker, Bradford Co.	NR	640.0	NR		39.7		33.9	...	35.0	....	....
Total	**899.0**	**786.4**		**483.4**	**399.2**	..	**229.8**	...	**118.6**	**120.8**	....

ILLINOIS

Company, plant, location	Gas capacity	Gas through-put	Process method	Ethane	Prop.	Isobut.	Normal or unsplit butane	LP-gas mix	Raw NGL mix	Debut. nat. gaso.	Other
Crystal Oil Co.—Keenville, Wayne Co., se¼-27-1s-5e	1.5	0.8	3				....	....	2.6	....	....
U.S. Industrial Chemicals Co., Division of Natural Distillers & Chemicals Corp.—Tuscola, Douglas Co., Ficklyn Township	550.0	408.0	2	492.1	390.6	35.2	76.1	...	...	31.6	....
Total	**551.5**	**408.8**		**492.1**	**390.6**	**35.2**	**76.1**	...	**2.6**	**31.6**	....

Company, plant, location	MMcfd Gas capacity	Gas through-put	Process method	Production — 1,000 gal/day (Average based on the past 12 months Ethane	Prop.	Isobut.	Normal or unsplit butane	LP-gas mix	Raw NGL mix	Debut. nat. gaso.	Other
INDIANA											
Crystal Oil Co.—East Mt. Carmel, Gibson Co., sw¼-ne¼-36-1s-12w	5.0	0.7	3	....	1.1	....	....	....	1.9	....	....
KANSAS											
Amoco Production Co.—Ulysses, Grant Co., 5-29s-38w	420.0	317.0	1	....	109.1	30.6	80.4	....	....	77.2	....
Anadarko Production Co.—Cimarron, Seward Co., 26-33s-32w	15.0	17.0	2	....	10.0	....	....	....	11.0	....	....
Interstate, Morton Co., 23-34s-43w	16.0	9.0	2	....	4.0	....	....	....	7.0	....	....
Lone Star, Stevens Co., 18-33s-35w	4.0	3.0	3	....	....	....	....	....	2.5	....	....
Woods, Seward, 22-33s-34w	10.0	11.0	2	....	4.0	....	....	....	7.0	....	....
Cities Service Co.—Cheney, Kingman Co., 22-28s-5w	100.0	81.4	7	....	....	....	....	....	141.0	....	....
Garrett, Kay Co., SF4-5-34 271n-1e	4.3	1.1	2	....	....	....	....	....	1.5	....	....
Hutchinson, Reno Co., 22-23s-6w	....	....	†	(170.5)	(737.5)	(130.0)	(312.9)	....	....	(249.7)	....
Jayhawk, Grant Co., 2-29s-35w	520.0	470.0	2&6	....	....	....	....	....	462.5	....	‡6.3
Midway, Kingman Co., 33-27s-5w	25.0	24.5	2	....	....	....	....	....	30.4	....	....
Spivey, Harper Co., 5-31s-8w	70.0	26.4	1	....	25.1	....	8.2	....	21.7	....	....
Sunflower, Scott Co., 17-18s-33w	250.0	164.5	3&6	....	....	....	....	....	200.7	....	....
Wichita, Sedgwick Co., 17-28s-1e	130.0	73.2	1	....	38.2	12.8	30.3	....	....	22.9	§18.2
Wilburton, Morton Co., 33-34s-41w	5.5	3.6	3	....	....	....	....	....	10.8	....	....
Colorado Interstate Gas Co.—Lakin, Kearney Co., n2 of ne4-29-24s-36w	215.0	144.0	1	....	....	....	....	....	23.3	....	....
Getty Oil Co.—Medicine Lodge, 13-32s-12w	30.0	7.6	1	....	4.0	....	....	....	4.4	....	....
Minneola, Ford Co., 13-29s-25w	25.0	12.2	2	....	8.1	....	....	....	7.4	....	....
Kansas Refined Helium Co.—Otis, Rush Co., 26-17-16w	24.0	15.0	6	....	....	....	....	....	....	....	§0.7
Mesa Petroleum Co.—Ulysses, Grant Co., 10-30s-37w	242.0	112.1	2	....	....	....	....	....	106.0	....	....
Mobil Oil Corp.—Hickok, Grant Co., 31-28s-35w	210.0	126.3	1	....	14.3	5.4	19.3	....	....	21.7	....
National Helium Corp.—Seward Co., 23-33s-32w	1,000.0	645.0	3	....	199.2	....	104.4	....	178.1	....	....
Northern Gas Products—Bushton, Ellsworth Co., 31-17s-9w	950.0	NR	2&6-7	432.0	660.0	71.0	175.0	....	....	152.0	....
Northern Helex Co.—Northern Helex, Ellsworth Co., 31-17s-9w	520.0	500.0	NR	....	....	....	....	....	....	....	§1.6
Northern Natural Gas Co.—Holcomb, Finney Co., 3-24s-34w	200.0	69.0	3	....	....	....	....	....	5.1	....	....
Sublette, Seward Co., 1-32s-33w	325.0	302.0	1	....	....	....	....	....	41.9	....	....
Peoples Natural Gas—Burrton, Harvey Co., nw4-23-23s-3w	3.1	1.2	2	....	....	....	....	....	0.4	....	....
Johnson, Stanton Co., nw4-33-28s-40w	7.0	6.4	2	....	....	....	....	....	0.7	....	....
Total	**5,320.9**	**3,879.7**		**432.0**	**1,076.0**	**119.8**	**417.6**	....	**1,263.4**	**273.8**	**24.5**

†Fractionation. (Figures in parenthesis do not represent primary production, and are not added in state totals). ‡Helium. §Helium—MMcfd.

Company, plant, location	Gas capacity	Gas through-put	Process method	Ethane	Prop.	Isobut.	Normal or unsplit butane	LP-gas mix	Raw NGL mix	Debut. nat. gaso.	Other
KENTUCKY											
Kentucky Hydrocarbon—Kentucky HC, Floyd Co.	53.9	51.0	3	....	....	....	....	....	....	....	†308.3
Tennessee Gas Pipeline Co.—Gabe, Green Co.	845.0	603.0	3	....	....	....	....	....	....	....	†196.0
Total	**898.9**	**654.0**		....	....	....	....	....	....	....	**504.3**

†Ethane and heavier hydrocarbons in one stream. ‡Mixed stream, hydrocarbon liquids.

Company, plant, location	Gas capacity	Gas through-put	Process method	Ethane	Prop.	Isobut.	Normal or unsplit butane	LP-gas mix	Raw NGL mix	Debut. nat. gaso.	Other
LOUISIANA											
American Natural Gas Producers—Pelican, St. Mary Par	200.0	NR	7	....	....	....	....	....	64.3	....	....
Amoco Production Co.—Lake Boeuf, Lafourche Par., 116-15s-18e	80.0	35.0	2	....	....	....	....	....	34.4	....	....
Port Hudson, East Baton Rouge Par., 79-5s-1w	25.0	8.0	6	....	....	....	....	....	6.3	....	....
South Jennings, Jefferson Davis Par., 5-10s-2w	55.0	18.0	2	....	....	....	....	....	18.5	....	....
South Manchester, Calcasieu Par., 22-10s-7w	80.0	22.0	2	....	....	....	....	....	40.9	....	....
South Pecan Lake, Cameron Par., 2-12s-9w	120.0	41.0	2	....	....	....	....	....	33.7	....	....
South Thornwell, Jefferson Davis Par., 3-11s-2w	95.0	38.0	2	....	....	....	....	....	39.9	....	....
TSMA, Vermilion Par 11-14s-1e	298.0	195.0	2	....	....	....	....	....	165.0	....	....
Anchor Gasoline Corp.—Krotz Springs, Pointe Coupee Par., 40&41-6s-7e	50.0	NR	1	....	....	....	....	11.8	....	3.6	....

GAS PROCESSING

Company, plant, parish, location	MMcfd Gas capacity	Gas through-put	Process method	Production — 1,000 gal/day (Average based on the past 12 months) Ethane	Prop.	Isobut.	Normal or unsplit butane	LP-gas mix	Raw NGL mix	Debut. nat. gaso.	Other
Arco Oil & Gas Co.—*Bayou Sale, St. Mary Par., 17-11s-9e	97.0	65.0	2		16.8		10.4			11.4	
Arkansas Louisiana Gas Co.—Bistineau, Webster Par., se-36-17n-10w se-31-17n-9w	60.0	32.4	1					5.0		10.0	[4]<0.1 [4]<0.1 [10]0.2
Calhoun, Ouachita Par., se-34-18n-1e	60.0	7.0	5							0.1	[10]0.5
Gayles, Caddo Par., 30-16n-12w	20.0	[illegible]	5							1.2	
Minden, Webster Par., 18-19n-8w	0.5	[illegible]	3						0.1		
Sligo, Bossier Par., se-9-185-21w	11.0	3.0	5							1.9	
Beacon Gasoline Co.—Webster Par., 26-21n-9w	72.0	20.0	2	[illegible]	7.0	6.0				10.0	
Chevron USA Inc.—West Cameron, Cameron Par., 7-15s-13e	200.0	160.0	2						115.0		
Cities Service Co.—Crowley, Acadia Par., 41&44-9s-1n-1e	45.0	19.5	7						17.6		
Lake Charles, Calcasieu Par., 19-10s-9w			†	(446.1)	(320.1)	(98.5)	(81.2)			173.5	
Saint Amelia, St. James Par., 12-12s-16e	38.0	32.1	2		8.2		8.8		6.7		
Claiborne Gasoline Co.—Claiborne Par., 20-21n-4w	NR	42.0	2		31.6	16.0	18.8		33.2		[2]49.2 [3]37.5 [10]30.2
Conoco Inc.—Acadia Par., 31-9s-1w	250.0	39.6	2&7	29.9	18.3		13.6				[2]78.4 [3]32.8 [4]5.7 [9]21.4
Gillis, Calcasieu Par., 14-9s-8w	200.0	165.2	2	74.7	66.4	23.2	16.8			30.4	[11]2.3
Grand Chenier, Cameron Par., 2-39-40 15s-6w	950.0	525.2	2&7					444.9			
Crystal Oil Co.—Buckshot Bayou, Franklin Par., nw¼-se¼-s-14n-8e	5.0	1.3	3						3.4		
Kings Bayou, Cameron Par., ne¼-34-14s-7w	80.0	23.1	2						15.0		
Exxon Co.—Blue Water, Acadia Par., 34-10s-1w	950.0	599.0	6&7						327.6		
Garden City, St. Mary Par., 45&46-15e-10e	900.0	218.3	2						988.3		
Grand Isle, Jefferson Par., 32-21s through 25e	100.0	50.6	2						48.7		
Lirette, Terrebonne Par., 23-32-19s-19e	300.0	137.3	2						153.0		
Opelousas, St. Landry Par., 32-6s-4e	110.0	99.5	2		22.8	0.2				30.6	
Thibodaux, Lafourche Par., 35&36-15s-16e	45.0	10.2	2		7.0		9.0				
Getty Oil Co.—Bastian Bay, Plaquemines Par., 42-21s-28e	150.0	33.0	7						34.0		
Cameron Par., 29-14s-9w	65.0	6.6	2						4.0		[11]0.4
Hollywood, Terrebonne Par., 10-17s-17e.	150.0	43.0	2						34.7		
Venice, Plaquemines Par., 25-21s-30e	65.0	32.0	2						29.1		
Gulf Oil Exploration & Production Co.—Venice, Plaquemines Par., 25-21s-30e	1,000.0	535.0	2		127.6	36.5	43.6			107.6	[5]170.2
Hunt Energy Corp.—Kinder, Allen Par., 25-6s-5w	30.0	NR	2		4.1		2.7			1.4	
Jones-O'Brien Inc.—South Keatchie, DeSoto Par., 25-14n-16w	15.0	3.0	3					2.0		7.0	
Kerr-McGee Corp.—Bayou Crook Chene, St. Martin Par., 534-105-9e	12.5	NR	2						15.2		
Dubach-Calhoun complex, Lincoln Par., 526&34-20n	175.0	NR	2		63.4	22.8	31.5			2.8	[2]154.3 [4]9.7 [7]19.9 [12]29.2
Koch Hydrocarbon Co.—Bayou Postillion, Iberia Par.	25.0	10.8	5					0.3			
LaGloria Oil & Gas Co.—Rayne, Acadia Par., 47-9-So. Rayne 2e	175.0	16.0	2	22.5					22.3		
Liquid Products Recovery Inc.—Napoleonville No. 1, Lafourche Par.	30.0	8.0	5								
Napoleonville No. 2, Assumption Par.	11.0	2.0	5								
Vacherie, St. James Par.	10.0	3.0	5								
Locust Ridge Gas Processing Co.—Locust Ridge, Tensas Par., 21-10n-11e	27.5	6.5	1						10.0		[9]1.4
Louisiana Land & Exploration Co.—Pointe au Chien, Terrebonne Par., 18-19s-20e	125.0	70.0	7						1.8		
Marathon Oil Co.—Cotton Valley, Webster Par., 26-21n-10w	220.0	48.4	7	37.4	28.5	11.5	10.3				[9]7.5 [10]1.9 [11]35.5
Mitchell Energy & Development Corp.—Jackson Par.	5.0	1.0	3						2.0		
Mobil Oil Exploration & Producing Southeast Inc.—Cameron Par., 23-15s-13w	470.0	413.0	2&7	74.4	57.4	20.9	16.5			43.3	
Cow Island, Vermilion Par., 29-13s-2e	950.0	670.0	2	128.0	186.0	77.2	47.6			125.5	
Iowa, Jefferson Davis Par., 18-9s-6w	500.0	300.0	7	43.9	33.3	12.2	13.0			36.2	
Sea Robin, Vermilion Par., 21-13s-14e	150.0	136.0	7	61.3	37.0	9.8	11.8			23.0	
South Timbalier, LaFourche Par., 28-20s-22e	125.0	36.0	7	35.6	15.7	4.6	4.9			6.7	
Mullins & Prichard—*Burtville, East Baton Rouge Par., 47-8s-1e	8.0	4.0	1&2						1.1		[11]1.7
Pano Tech Exploration Corp.—Lake LaRosa, St. Martin Par., 29-9s-8e	16.0	NR	6						12.9		

Company, plant, parish, location	MMcfd			Production — 1,000 gal/day (Average based on the past 12 months							
	Gas capacity	Gas through-put	Process method	Ethane	Prop.	Isobut.	Normal or unsplit butane	LP-gas mix	Raw NGL mix	Debut. nat. gaso.	Other
Phillips Petroleum Co.—Rollover, Jefferson Davis Par., nw4-22-11s-3w	190.0	NR	2								
Vermilion, No. Erath and Grosse Isle Par., sw4-se4-41-13s-4e	45.0	NR	2								
Placid Oil Co.—*Black Lake, Natchitoches Par., 14-11n-6w	150.0	139.0	2						281.5		[11]140.7
Lapeyrouse, Terrebone Par., 71-20s-18e	100.0	30.0	2						29.3		[11]13.4
Patterson I, St. Mary Par., 48-15s-11e	200.0	73.0	2						90.5		[11]27.1
Patterson II, St. Mary Par., 48-15s-11e	600.0	94.0	7						119.5		
Resources Extraction & Processing Co.—Bayou Vista 1, St. Mary Par., 11-155-11e	200.0	200.0	7	64.2	24.3	7.6	7.3			16.0	
Shell Oil Co.—Bayou Goula, Iberville Par., 67-10s-12e	71.0	6.0	2						7.6		
Black Bayou, Cameron Par., 18-12-12w	18.0	13.0	2						3.8		
Calumet, St. Mary Par., 11-12-51-52-15s-11e	1,200.0	789.0	2						418.8		
Chalkley, Cameron Par., 27-12s-6w	23.0	5.0	2						3.8		
Crawfish, St. Charles Par., 36-13s-20e	120.0	93.0	7						106.2		
*LaPice, St. James Par., 38-12s-15e	12.0	8.0	5						0.1		
Mermentau, Acadia Par., 70-10s-2w	120.0	26.0	2						31.4		
Norco fractionator, St. Charles Par., 6-12s-8e			†	(700.1)	(366.8)	(104.1)	(127.1)			(204.8)	
North Terrebone, Terrebone Par., 19-20-29-33-17s-15e	1,250.0	979.0	2						1,000.0		
Stingray, Cameron Par., 33&34-15s-13w	225.0	229.0	2						107.0		
Tebone fractionator, Ascension Par., 45&46-9s-2e			†	(360.6)	(270.5)	(82.0)	(75.3)			(177.3)	
Timbalier, Terrebonne Par. nw4 of 32-16 sw 4 of 33-19s-19e	100.0	30.0	7						50.3		
Toca, St. Bernard Par., 54-14s-14e	830.0	494.0	2&7						594.0		
Weeks Island, Iberia Par., 13-14s-6e	129.0	53.0	2		8.9				19.0		
Yscloskey, St. Bernard Par., 39-13s-15e	1,850.0	1,711.0	2						1,121.9		
South Louisiana Production Cl—Aymond, St. Mary Par., 13-14s-9e	60.0	34.6	7						37.7		[11]0.1
Cocodrie, Evangeline Par., 35-2s-2e	50.0	43.5	2		21.8		15.3			12.0	[11]0.7
St. Landry, Evangeline Par., 35-2s-2e	60.0	56.8	2		22.5		16.4			11.7	[11]0.7
Sun Gas Co.—Belle Isle, St. Mary Par., 28-17s-10e	200.0	75.1	2						53.8		
*Delhi, Richland Par., 15-17n-9e	22.0	21.6	6	13.1	18.5	5.9	18.7			32.5	
*Fordoche, Pointe Coupee Par., 41-6s-8e	70.0	12.4	2						23.5		
Maurice, Lafayette Par., 31-10s-4e	32.0	20.8	2						34.8		
South Sarepta, Bossier Par., 21-22n-11w	25.0	10.4	2		4.7		5.0			4.6	
Superior Oil Co.—Dulac, Terrebonne Par., 2&68 19s-17e	55.0	48.0	7						77.1		
Lowry, Cameron Par., 16-12s-4w	300.0	300.0	2&7	71.2	82.7	32.2	21.0			51.5	[3]3.2
Tenneco Oil Co.—*Stephens, Claiborne Par., 6&7-13s-12e	35.0	18.1	2		1.5		1.7			3.3	
Texaco Inc.‡—Alligator Bayou, St. Martin Par., sw14-34-10s-9e	27.0	NR	7						47.0		
Floodway, St. Mary Par., 16-16s-16e	900.0	NR	7						945.0		
Fordoche, Point Coupee Par., 28-6s-8e	30.0	NR	2		22.0		16.0			9.0	
Henry, Vermilion Par., 21-13-4e	825.0	NR	2	346.5	283.5	93.0			420.0		
Paradis, St. Charles Par., 29-14s-20e	800.0	NR	2	200.0	429.0		237.0			205.0	
Sea Robin, Vermilion Par., 21-13s-4e	900.0	NR	7	253.0	198.0	71.0	69.0			147.0	
South Lake Arthur, Jefferson Davis Par., 13-11s-3w	60.0	NR	7						122.0		
Texas Gas Exploration Corp.—Eunice, Acadia Par., 12-7s-2w	1,100.0	680.0	2	170.2	220.7	69.2	56.6			129.3	
Texas Pacific Oil Inc.—Lake Charles, Cameron Par., 7&8-12s-5w	15.0	NR							5.8		
Trans-Ocean Oil Inc.—Grand Chenier, Cameron Par.	125.0	NR	7						42.2		
Union Oil Co. of California—Houma, Terrebonne Par., 26-17s-17e	80.0	24.7	2						33.1		
Union Texas Petroleum—Rayne, Acadia Par.	750.0	315.0	2	56.9	45.5	10.0	9.8			16.3	
Sligo, Bossier Par.	290.0	28.0	2		10.0	3.0	4.1			9.8	
Toca, St. Bernard Par.	190.0	50.0	2		30.9	9.5	11.1			23.9	
Warren Petroleum Co.—Johnsons Bayou, Cameron Par., 32&33-15s-12w	NR	21.0	7						22.0		
Krotz Springs, St. Landry Par., 22-6s-7e	NR	38.0	2		44.0				87.0		[11]12.0
Total	**24,566.7**	**15,307.2**		**1,537.9**	**2,013.1**	**509.5**	**683.9**	**464.0**	**7,907.6**	**1,225.9**	**887.8**

†Fractionation. (Figures in parenthesis do not represent primary production, and are not added in state totals). ‡All figures capacity.

MICHIGAN

Company, plant, parish, location	Gas capacity	Gas through-put	Process method	Ethane	Prop.	Isobut.	Normal or unsplit butane	LP-gas mix	Raw NGL mix	Debut. nat. gaso.	Other
Amoco Production Co.—Kalkaska, Kalkaska Co., 31-27n-7w	120.0	106.0	6-7						53.0		[11]43.0
Marathon Oil Co.—Scipio, Hillside Co., 2-5s-3w	38.0	15.0	2		29.9			24.9			
Michigan Consolidated Gas Co.—Leonard, Oakland Co., Addison e¼-15-5n-11e	25.0	10.0	3						10.0		[11]5.0
Romeo, Macomb Co., Washington 14-4n-12e	15.0	15.0	3						17.0		[11]5.0

Company, plant, location	MMcfd Gas capacity	MMcfd Gas through-put	Process method	Production — 1,000 gal/day (Average based on the past 12 months Ethane	Prop.	Isobut.	Normal or unsplit butane	LP-gas mix	Raw NGL mix	Debut. nat. gaso.	Other
Michigan Hydrocarbons Inc.—Chester, Otsego Co.	30.0	NR	3	....	2.0	....	1.8	...	....	1.1	....
Michigan Wisconsin Pipeline Co.—*Loreed, Osceola Co., 30-18n-10w	54.0	26.0	2		2.5	0.5	1.7		....	3.1	....
Mobil Oil Corp.—Aurelius, Ingham Co., 36-2n-2w	23.0	15.6	2		14.9				18.2		[9]1.1
Shell Oil Co.—Kalkaska Co., 32-27n-7w	350.0	261.0	2&7						988.0		[11]130.0
Total	**655.0**	**472.6**			**49.3**	**0.5**	**3.5**	**24.9**	**1,086.2**	**4.2**	**184.1**
MISSISSIPPI											
Amoco Production Co.—Quitman Bayou, Adams Co., 2-8n-3w	1.0	1.0	3					1.0		0.1	
Getty Oil Co.—Bay Springs, Jasper Co., 27-2n-10e	10.0	2.1	2					3.6	5.1		
Shell Oil Co.—Goodwater, Clarke Co., 5-10n-8w	15.0	4.3	3		1.6		1.5			1.5	
Thomasville, Rankin Co., 27-4n-3e	100.0	92.8	NR								
Southern Natural Gas Co.—*Muldon, Monroe Co., 27-15s-6e	750.0	368.0	5						17.1		
Texas Oil & Gas Corp.—Harmony, Clarke Co., 26-2n-14e	30.0	10.0	3		13.0		14.0		10.0		[11]6.0
Total	**906.0**	**478.2**			**14.6**		**15.5**	**4.6**	**32.2**	**1.6**	**6.0**
MONTANA											
Crystal Oil Co.—Sioux Pass, Richland Co., sw¼-18-25n-58e	3.0	0.7	3						3.1		
Flying J Inc.—Westco Refining, Glacier Co., 22-33n-5w	30.0	15.8	1		9.5	9.2			6.4		
McCulloch Gas Processing Corp.—*Fairview, Richland Co., 10-24n-57e	6.0	3.0	2		6.0		2.0		6.0		
PGP Gas Products Inc.—Mon-Dak, Richland Co., ne4-18-22-60e PMM	4.0	2.0	3		3.5				6.5		
Shell Oil Co.—Cabin Creek, Fallon Co., 18-10n-58e	1.7	1.7	3						4.2		
South Pine, Wibaux Co., 10-11n-57e	1.2	1.1	3						4.3		
Stateline, Richland Co., 7-22n-60e	12.0	3.0	3		7.8				7.2		
True Oil Co.—Bob Rhodes, Richland Co., 4-25n-59e	5.0	1.0	3						6.0		
Total	**62.9**	**28.3**			**26.8**	**9.2**	**2.0**		**43.7**		
NEBRASKA											
Cities Service Co.—Kimball, Kimball Co., 10-12n-55w	10.5	0.8	1		2.0				2.2		
Marathon Oil Co.—West Sidney, Cheyenne Co., 4-12n-50w	12.5	3.1	2		3.8		1.9			2.2	
Total	**23.0**	**3.9**			**5.8**		**1.9**		**2.2**	**2.2**	
NEW MEXICO											
Amoco Production Co.—Empire Abo, Eddy Co., 3-18s-17e	42.5	39.0	6&7	115.8	77.4		35.8			28.5	
Cabot Corp.—Hobbs, Lea Co., 28-18s-36e	61.0	62.0	7						64.3		
Cities Service Co.—Abo, Eddy Co., 35-17s-27e	4.0	2.5	7						9.9		
Bluitt, Roosevelt Co., 15-8s-36	37.0	34.5	2	19.9	40.6	6.9	15.9			14.4	
Burton Flats, Eddy Co., 14-20s-28e-NMPM	7.5	4.2	7						16.3	....	....
Conoco Inc.—Maljamar, Lea Co., 21-17s-32e	26.0	9.7	2	22.5	24.5		11.8			9.1	[11]0.2
El Paso Natural Gas Co.—Blanco, San Juan Co., n2-n2-14-29n-11w	558.0	NR	1						389.6		
Chaco, San Juan Co., sw4-16-26n-12w	594.0	NR	2						642.3		
Jal No. 1, Lea Co., 26s-36-37e	303.0	142.3	2						57.9		
Jal No. 3, Lea Co., nw4-sw4-33-24s-37e	225.0	99.6	2						103.9		
Jal No. 4A, Lea Co., se4-se4-31-23s-37e and s2-sw4-32-23s-37e	185.0	185.0	1						156.9		
Jal No. 4B, Lea Co., se4-se4-31-23s-37e and s2-sw4-32-23s-37e			†		(86.4)		(104.6)			(124.8)	
San Juan Co., 1-29n-15w	71.0	NR	1		9.6		14.0			16.3	
Wingate, McKinley Co., 16&17-15n-17w			†		(293.0)	(98.5)	(179.7)			(220.6)	
Gas Co. of New Mexico, Division of Southern Union Co.—Avalon, Eddy Co., 9-21s-27e	30.0	14.0	2					10.9			
Getty Oil Co.—Eunice No. 1, Lea Co., 27-22s-37e	100.0	101.1	7		80.4	15.4	43.4		54.9		[5]173.2
Marathon Oil Co.—Indian Basin, Eddy Co., 23-21s-23e	220.0	133.0	2						133.3		
Minerals Inc.—Hobbs, Lea County, 36-18s-36e	45.0	32.0	7						37.0		
Northern Natural Gas Co.—Hobbs, Lea Co., 6-19s-37e	220.0	167.0	2		130.0				114.3		
Perry Gas Processors Inc.—Antelope Ridge, Lea Co., Unit K-34-23-24	9.0	4.0	1								
Phillips Petroleum Co.—Artesia, Eddy Co., s2-sw4-32-23s-37e	....	....	†								
Eunice, Lea Co., ne4-5-21s-36e	80.0	NR	7								

Company, plant, location	MMcfd Gas capacity	MMcfd Gas through-put	Process method	Production — 1,000 gal/day (Average based on the past 12 months) Ethane	Prop.	Isobut.	Normal or unsplit butane	LP-gas mix	Raw NGL mix	Debut. nat. gaso.	Other
Hobbs, Lea Co., n2nw4-4-19s-38e	38.0	NR	1	....	....	....	....	....	....	....	....
Lee, Lee Co., sw4-se4-30 nw4-ne4-31-17s-35e	85.0	NR	2	....	....	....	....	....	....	....	....
Lovington, Lea Co., sw4-31-16s-37e	10.0	NR	1	....	....	....	....	....	....	....	....
Lusk, Lea Co., nw4-ne4-19-19s-32e	60.0	NR	2	....	....	....	....	....	....	....	....
Southern Union Refining Co.—Kutz No. 1, San Juan Co., 11, 12, 13, 14-28n-11w	135.0	126.0	2						285.2	....	....
Kutz No. 2, San Juan Co., 11, 12, 13, 14-28n-11w	80.0	71.0	7						200.6	....	....
Lybrook, Rio Arriba Co., 14-23n-7w	70.0	60.0	7						207.1	....	....
Tenneco Oil Co.—Gallegos Canyon, San Juan Co., se¼-sw¼-13-25n-10w NMPM	19.4	7.0	7						38.2	....	....
Texaco‡—Buckeye, Lea Co., 36&1 175 and 18s-34e	22.5	NR	6						144.6	....	....
Tipperary Corp.—Denton, Lea Co., 2-7-155-37e	22.5	4.0	3					....	20.0	....	....
Warren Petroleum Co.—Eunice, Lea Co., ne4-3-22s-37e	NR	82.0	7						369.0	....	....
Monument, Lea Co., ne4-3-22s-37e	NR	68.0	7		13.0				234.0	....	....
Saunders, Lea Co., 34-14s-33e	NR	23.0	6						141.0	....	
Tatum, Lea Co., n2-nw4-ne4-18-12s-38e	NR	2.0	3						5.0	....	[11]2.0
Vada, Lea Co., s2-sw4-nw4-23-10s-33e	NR	8.0	3						58.0	....	....
Total	**3,632.1**	**2,730.1**		**158.2**	**375.5**	**22.3**	**120.9**	**10.9**	**3,454.4**	**68.3**	**175.4**

[†] Fractionation. (Figures in parenthesis do not represent primary production, and are not added in state totals). ‡All figures are capaciay.

NORTH DAKOTA

Company, plant, location	Gas capacity	Gas through-put	Process method	Ethane	Prop.	Isobut.	Normal or unsplit butane	LP-gas mix	Raw NGL mix	Debut. nat. gaso.	Other
Aminoil USA Inc.—Tioga, Williams Co., 26-157n-95w	105.0	61.2	2		72.5		45.9			34.8	....
Cities Service Co.—Lignite, Burke Co., nw4-7-162n-91w	20.0	4.0	1		6.6		4.5			3.4	....
Ecological Engineering Systems Inc.—Teddy Roosevelt, Billings Co., 16-142n-99w nw4-ne4	14.0	14.0	3		16.0			8.0			[11]8.0
Kerr-McGee Corp.—Boxcar Butte, McKenzie Co., 251-148n-102w	6.0	NR	3		2.0		1.7			1.2	
True Oil Co.—Red Wing Creek, McKenzie Co., 27-148n-101w	10.0	3.5	2		9.0		3.0			2.0	
Williston, Williams Co., 26-154n-102w	8.0	4.0	3						20.0		
Warren Petroleum Co.—Little Knife, Dunn Co., 16-141n-98w	NR	15.0	3		18.0		28.0		9.0		
Total	**181.7**	**106.5**			**124.1**		**83.2**	**8.0**	**29.0**	**41.4**	**8.0**

OKLAHOMA

Company, plant, location	Gas capacity	Gas through-put	Process method	Ethane	Prop.	Isobut.	Normal or unsplit butane	LP-gas mix	Raw NGL mix	Debut. nat. gaso.	Other
Aminoil USA Inc.—Aline, Alfalfa Co., 7-23n-11w	45.0	24.4	2		5.7				30.8		
Fox, Carter Co., 28-2s-3w	70.0	40.0	7			7.1	24.6			25.4	[5]121.6
Lucien, Noble Co., 18-20n-2w	16.0	11.8	7						28.5		
Amoco Production Co.—Elmwood, Beaver Co., 24-2n-24ecm	80.0	27.3	2						33.5		
Hitchcock, Blaine Co., 13-17n-11w	55.0	35.4	7						49.0		[11]0.3
Mooreland, Woodward Co., 30-23n-18w	150.0	96.7	7						224.1		[11]5.5
North Okarche, Kingfisher, 8-15n-7w	25.0	14.5	5						1.4		
Okeene, Blaine Co., 36-19n-11w	39.0	28.0	2					22.1			[5]62.3 [11]1.2
Star-Lacey, Blaine Co., 2-19n-10w	20.0	5.4	2						13.6		[11]0.2
Anadarko Production Co.—North Richland Center, Texas Co., 38-6n-12ecm	25.0	23.0	2		21.0				24.0		
Arco Oil & Gas Co.—Covington, Garfield Co., w½-sw¼-19-22n-3w	15.0	11.0	7						36.8		[11]0.4
Drumright, Creek Co., nw¼-sw½-28-18n-7e	15.0	5.4	1		13.1				23.1		[11]0.3
Seminole Co., sw¼-ne¼-10-8n-6e	15.0	8.7	1		13.1				23.1		[11]0.3
abot Corp.—Beaver Co., 25-5n-23ecm	20.0	18.9	7						51.6		
hamplin Petroleum Co.—Enid, Garfield Co., 34-23n-6w	36.0	31.8	2					84.9		13.7	
Witcher, Oklahoma Co., 1-12n-3w	15.0	7.8	3		8.6		3.7			4.7	
hevron USA Inc.—Marietta, Love Co., 31-75-3c	50.0	6.0	2		4.1		3.6				[11]1.0
ities Service Co.—Ambrose, Kay Co., 9-27n-1w	375.0	242.7	2		94.6	22.6	53.6			41.2	[5]32.1
Garrett, Kay Co., sf4-5-34 271n-1e	4.3	1.1	2						1.5		
Murdock, Texas Co., 32-5n-16ecm	39.0	27.5	7						71.3		
Rodman, Garfield Co., 27-20n-R&W	90.0	40.6	7	53.3	45.0	6.7	16.0			21.7	
olorado Interstate Gas Co.—Keyes, Cimarron, e2 of se4-17-5n-7e	50.0	33.0	3						4.6		
onoco Inc.—Cashion, Kingfisher Co., 15n-5w-se4-20	30.0	17.7	3						20.0		
Hennessey, Kingfisher Co., 36-19n-7w	30.0	24.6	7					68.1			
Medford, Grant Co., 32-27n-5w	30.0	17.5	2		7.0	1.7	5.0		3.1		
RA Inc.—Lamont, Grant and Garfield Co., 20-26n-3w	13.5	4.1	2						8.1		
orchester Gas Producer Co.—Hooker Co. Hugoton, 8-4n-17ecm	75.0	70.0	7	72.5	60.6	8.7	20.6			19.3	
ason Oil Co.—Crescent, Logan Co., sw34-71n-4w	40.0	30.0	2	10.0	37.0	6.0	16.0			19.0	
Paso Natural Gas Co.—Beaver Co.,											

GAS PROCESSING

Company, plant, location	MMcfd Gas capacity	MMcfd Gas through-put	Process method	Production — 1,000 gal/day (Average based on the past 12 months) Ethane	Prop.	Isobut.	Normal or unsplit butane	LP-gas mix	Raw NGL mix	Debut. nat. gaso.	Other
se4-ne4-18-3n-26e	40.0	20.0	3						20.8		
Enserch Exploration Inc.—Katie, Garvin Co., 36-2n-2w	20.0	4.0	2						9.7		
Wallville, Garvin Co., 27-4n-3w	6.0	3.1	2						3.9		
Exxon Co.—Camargo, Dewey Co., 10-18n-19w	15.0	10.0	2		10.3	8.1					
Dover-Hennessey, Kingfisher Co., 1-18n-7w	80.0	71.0	7						303.6		
Getty Oil Co.—East Velma Middle Block, Stephens Co. 1-2w-4w	30.0	27.6	2						35.3		
Velma, Stephens Co., 23-1s-sw	100.0	77.0	7						256.2		
Grimes Gasoline Co.—Okemah, Okfuskee Co., 23-11n-9e	1.0	0.6	1						1.2		
Kansas-Nebraska Natural Gas Cl—Tyrone, Texas Co., 10-06n-19 E of Cimarron Meridian	66.0	38.9	2						72.5		
Kerr-McGee Corp.—Milfay, Creek Co., 21-15n-7e	12.0	NR	2		3.7		1.4			4.8	
Koch Oil Co.—Fitts, Pontotoc Co., 30-2n-7e	12.0	2.0	3		1.2			3.2			
Ladd Petroleum Corp.—Leonel, Dewey Co., 14-16n-14w	26.0	8.8	3						12.6		[11]1.1
Mapco Inc.—SW Davis, Murray Co., 11-1s-1e	2.0	0.7	3						2.6		
Tyrone, Texas Co., 11-6n-18e	60.0	47.8	7						45.3		
Mobil Oil Corp.—Chitwood, Grady Co., 34-5n-6w	60.0	31.7	6						85.3		[9]2.1
NE Trail, Dewey Co., 1-17n-18w	25.0	12.9	2		19.6				18.9		[9]1.8
Postle Hough, Texas Co., 13-5n-13ecm	18.5	4.9	2		10.2				12.6		[9]0.5
*Putnam-Oswego, Dewey Co., 35-16n-16w	50.0	57.0	6		17.6				78.4		[9]0.6
Seiling, Woodward Co., 32-20n-17w	20.0	10.4	3	(All products fractionated at NE Trail)							
Sholem Alechem, Stephens Co., 2-1s-4w	70.0	39.5	6		58.2				106.5		[9]0.8
West Putnam, Dewey Co., 9-17n-17w	10.0	5.2	3	(All products fractionated at NE Trail)							
Mustang Gas Products Co.—Calumet, Canadian Co., ne4-28-14n-9w	250.0	175.0	2		87.5				54.0		
Northern Natural Gas Co.—Cabot-Highland, Beaver Co., 18-4n-27e	50.0	NR	5								
Perry Gas Processors Inc.—Dewey Co., 7-13-18 21s-25e	30.0	24.0	5								
Phillips Petroleum Co.—Bradley, Garvin Co., ne4-nw4-18-4n-4w	140.0	NR	1								
Cimarron, Woodward Co., e2-ne4-27-20n-17w	56.0	NR	3								
Creek, Tulsa Co., s2-sw4-nw4-7-17n-13e	25.0	NR	7								
Kingfisher Co., nw4-sw4-9-15n-5w	175.0	NR	7								
Norge, Grady Co., ne4-3-6n-8w	27.0	NR	3								
Oklahoma Co., ne4-sw4-1-11n-3w	16.0	NR	1								
Sooner No. 1, Major Co., se4-se4-17-20n-9w	12.0	NR	3								
Pioneer Gas Products Co.—Binger, Caddo Co., 26-10n-11w	15.0	3.6	7					13.6		1.3	
Madill, Marshall Co., 32-7e-5s	27.0	21.6	2		20.7	4.9			14.5		
Ringwood, Major Co., 11-22n-10w	80.0	48.6	2&7					121.7		24.9	
Shell Oil Co.—Seiling, Dewey Co., 4-19n-17w	75.0	44.0	2		31.4				30.8		
Sohio Petroleum Co.—Elmore, Garvin Co., 17-2n-1w	70.0	63.0	2		16.0		14.0			17.0	[5]61.0
Sun Gas Co.—Carney, Lincoln Co., 12-15n-2e	17.5	8.0	2						18.8		
Cushing, Payne Co., 15-18n-4e	3.0	1.4	3						1.4		
*Goldsby Central, McClain Co., 3-7n-3w	38.0	35.5	7						106.2		
Laverne, Harper Co., 20-26n-25w	225.0	168.0	7		85.7	19.0	44.8			57.0	[5]278.8
Steedman, Pontotoc, 36-5n-7e	3.0	0.3	2						1.4		
Stillwater, Payne Co., 16-18n-2e	5.0	1.0	3						2.0		
Tonkawa, Kay Co., 30-25n-1w	12.0	0.6	3						1.5		
Wakita, Grant Co., 5-27n-7w	17.0	7.7	2						23.0		
Tenneco Oil Co.—Ames, Major, 12-20n-10w	65.0	27.3	2						43.3		
Texaco Inc.†—Apache, Caddo Co., 2-5n-12w	7.5	NR	3		3.0			7.0			
Camrick, Beaver Co., 31-1n-20 ecm	45.0	NR	2						88.7		
Enville, Love Co., 7-7s-3e	23.0	NR	2		10.3		6.5			6.2	
Texas Oil & Gas Corp.—Cimarron, Blaine Co., 24-18n-13w	90.0	85.0	7						162.0		[11]2.7
Custer Co., 34-14n-16w	50.0	45.0	2						74.0		[11]3.0
Jefferies, Major Co., 14-23n-12w	20.0	5.0	2						9.5		[11]0.3
Watonga, Kingfisher Co., 35-15w-9w	25.0	25.0	7						70.0		[11]5.2
Woodward Co., 29-23n-21w	75.0	55.0	7						92.0		[11]2.3
Union Oil Co. of California—Caddo, Carter Co., 23-3s-1e	10.0	5.9	3		6.5					6.0	
Union Texas Petroleum Corp.—Chaney Dell, Major Co., 35-23n-10w	100.0	86.0	2						184.8		
Warren Petroleum Co.—Knox, Grady Co., 33-3n-5w	NR	20.0	2		7.0				30.0		
Maysville, Garvin Co., 18-4n-2w	NR	51.0	7		4.0	4.0	30.0		40.0		[5]161.0
Mocane, Beaver Co., 18-5n-25e-ecm	NR	87.0	2				29.0		37.0		[5]108.0
Total	**4,267.7**	**2,943.3**		**135.8**	**707.9**	**88.8**	**267.5**	**319.2**	**2,774.6**	**260.9**	**857.0**

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†All figures are capacity.

	MMcfd			Production — 1,000 gal/day (Average based on the past 12 months							
Company, plant, location	Gas capacity	Gas through-put	Process method	Ethane	Prop.	Isobut.	Normal or unsplit butane	LP-gas mix	Raw NGL mix	Debut. nat. gaso.	Other
TEXAS											
Adobe Oil Corp.—Apple Creek, Glasscock Co., 8 mi E of Garden City	25.0	6.0	6&7						25.0		
Sale Ranch, Martin Co., 23-1n-37 10 mi NW of Stanton	16.0	10.0	2						60.0		
Aminoil USA Inc.—Birthright, Hopkins Co.	30.0	11.6	3		7.9				15.5		
Amoco Gas Co.—Texas City, Galveston Co. 1.814 acre tract in John Grant A-72	140.0	116.0	7						25.5		[5]22.2
Amoco Production Co.—Burnell-North Pettus, Bee Co., A-591	180.0	58.9	1		8.5		3.8			8.5	[5]16.1
East Bay, Matagorda, 5-4-3	150.0	7.2	5								[11]1.0
*Edgewood, Van Zandt Co., Z. Roberts A-702	60.0	18.0	2		17.9				82.0		
Hastings, Brazoria Co., 1-ACH-DA-416	70.0	96.7	7							35.2	[5]41.5
La Blanca, Hidalgo Co., Tex-Mex RR.	57.0	13.2	4								[11]2.4
*La Rosa, Refugio Co., Jose M. Aldrete	11.0	1.3	3								[11]2.0
Levelland, Hockley Co., Labor 7, League 72, Val Verde School Land	40.0	22.3	1		65.5		37.0			30.6	
*Luby, Nueces Co., Canutillo Colony Dutch Co.	90.0	23.5	2		7.0		6.8			9.3	[5]14.4
Midland Farms, Andrews Co., 8-42-T-T-N G&MMB&A	45.0	10.5	6&7	23.7	26.2	4.8	11.3				
Monahans, Winkler Co., 24-10 PSL	5.0	5.4	3	2.1	3.3	0.5	2.0				
North Cowden, Ector Co., 34-35-43-1M T&P RR	45.0	23.5	6&7		66.9		37.6			34.0	
Old Ocean, Brazoria Co., Charles Breen League A-46	570.0	247.3	2	145.3	86.9	26.2	24.1			74.6	[1]15.0
Prentice, Yoakum Co., 20K PSL	6.0	5.4	1						38.8		
Slaughter, Hockley Co., 14-15-59 Edwards & Scurry CSL	80.0	38.4	1		91.7		69.4			55.8	[5]83.8
South Fullerton, Andrews Co., 8-A 48 PSL	10.0	10.1	6&7	39.3	39.4	5.3	16.4				
*South Gillock, Galveston Co., John Sellers	32.0	26.9	2						6.7		[5]9.9
Urbana, San Jacinto Co., S.S. Lanier A-200	8.5	6.9	3								[11]1.3
West Yantis, Wood Co., 3 Oscar Engledon A-181	30.0	12.0	3								[11]54.4
White Flat, Nolan Co., John Clark A-287	6.5	1.0	3						9.4		
*Willamar Miocene, Willacy Co., A.J. Jones Estate Share 13	75.0	17.8	5								[11]0:6
Anchor Gasoline Corp.—Tabasco, Hidalgo Co., nw corner of Tract 322, Las Ejidas de Reynosa Vieja Grant	67.0	NR	1					8.8		2.7	
Arco Oil and Gas Co.—*Block 31, Crane Co., 33-31 Univ. Lands	180.0	190.6	2	1.3	140.6		85.4			56.1	
Crane, Upton Co., 128-D CCS&RR Co.	15.0	7.6	3						20.5		[11]0.1
Crittenden, Winkler Co., 24-C23-PSL	50.0	23.5	7						41.7		
East Rhodes, McMullen Co., Seale & Morris, 9-A-441	12.0	3.4	5								[11]2.4
El Dorado, Schleicher Co., 81-TT-TC RR	56.0	18.8	1		26.5		12.6			9.2	[11]3.6
Fashing, Atascosa & Karnes Co., 131 Wm. Smith	12.0	4.0	1					0.6		1.5	[11]1.8
Hull, Liberty Co., Wm. Smith A-342	18.0	2.0	2		2.1					2.4	
Longview, Gregg Co., J. Moseley	35.0	17.0	2&7	29.3	90.1					111.1	
*Midland Co., 17-40-4s T&PRR	12.0	8.6	3						14.7		[11]0.1
Northeast Thompsonville, Jim Hogg Co., 4r Holheim subdiv Las Animas GT Pena	100.0	21.0	5								[11]2.6
Nueces River, Live Oak Co., Camerson CSL 32-A	90.0	50.0	2	9.2	19.7		14.6			12.0	
Price, Rusk Co., J. B. Cadena	15.0	1.0	1		6.1					18.2	
Refugio Co.	6.5	0.6	2						0.9		
Roos, McMullen Co., Chas. T. Stansel 102 A-1141	42.0	2.4	5								[11]3.2
Silsbee, Hardin Co., George W. Brooks A-4	50.0	15.0	2	2.5	10.4	1.6	5.4			6.0	[11]0.1
Taft, San Patricio Co., 48&48A Coleman Pasture Lands	40.0	26.0	2		7.2		5.8			5.2	
Arkansas Louisiana Gas Co.—Jefferson, Marion Co., Heirs of John Hanks A-188	3.5	1.6	5							0.5	
Waskom, Harrison Co., J. Blair	205.0	87.2	2		13.0	7.0	10.1			38.4	[3]1.4 [6]0.6 [10]4.1
Willow Springs, Gregg Co., P.P. Rains	20.0	9.8	5							1.1	
Beacon Gasoline Co.—Strawn, Tom Green Co.	7.0	5.0	3						22.0		
Big Lake Gasoline—Reagan Co., 8 miles e of Big Lake, Tex.	8.0	5.5	3						20.0		
Black Hawk Gasoline Corp.—Jack Co., R. Stanton, A-1329	2.0	1.0	2&3						108.0		[11]204.0
Bowie Gasoline—Montague Co., 3 miles ne of Bowie, Tex.	8.0	3.5	3		3.0				5.0		
Breckenridge Gasoline Co.—Eliasville, Stephens Co., 1174 TE&L A-503	5.0	2.4	2		2.2		1.1			2.5	
Lodi, Cass Co., Wm. R. Meyer A-166	5.0	2.6	1						4.6		
Cabot Corp.—Carson Co., 4-5-I&GN	20.0	10.5	7						39.9		
Estes, Ward Co., 3-16 Univ. Land Sur.	11.5	11.5	7						35.2		
Kingsmill, Gray Co., 152-3-I&GN	24.4	18.2	7						91.0		
Walton, Winkler Co., 11-26-PSL	33.5	32.8	7						119.0		

GAS PROCESSING

Company, plant, location	MMcfd			Production — 1,000 gal/day (Average based on the past 12 months							
	Gas capacity	Gas through-put	Process method	Ethane	Prop.	Isobut.	Normal or unsplit butane	LP-gas mix	Raw NGL mix	Debut. nat. gaso.	Other
Champlin Petroleum Co.—Conroe, Montgomery Co.	65.0	54.9	7							110.1	
East Texas, Panola Co.	260.0	240.8	7	156.5	80.6		57.5			145.8	
Gulf Plains, Nueces Co.	135.0	131.1	7	128.9	58.0		33.2			94.8	
Chevron U.S.A. Inc.—Chevron, Kleberg Co., Lat. 27°25′ Long. 97°17′	80.0	15.0	5						2.1		
Kermit, Winkler Co.	50.0	17.0	2		5.0		8.9				[11]18.3
North Snyder, Scurry Co.	44.0	43.0	3	103.9	163.3	18.6	62.2		53.5		
Sherman, Grayson Co.	40.0	22.0	2		15.6			17.7		9.2	
Sivells Bend, Cooke Co.	5.0	1.0	1		0.7			0.9	0.5		
Cities Service Co.—Chico, Wise Co., CH&HRR A-384	65.0	68.0	2	81.6	131.4	5.2	45.1			41.5	
Corpus Bay, San Patricio Co., Lot A Gregory subdiv. Geronimo Valdez A-296	75.0	51.2	2	20.7	23.0	10.5	6.2			11.6	
East Texas, Gregg Co., William Castleberry A-38	27.0	20.1	2&7	46.3	75.7		54.0			39.5	
*Ector Co., T&PRR 44-2s	4.0	1.3	7						3.2		
Lefors, Gray Co., 2-1-AC&1&B	11.6	6.5	7						58.7		
May, Kleberg Co., 12-5 first subdiv. of Riviera Lands	50.0	4.5	2						5.4		
Mont Belvieu fractionation, Chambers Co., Henry Griffin, League A-12			†	(1,229.5)	(971.3)	(139.9)	(337.2)			(304.0)	
Myrtle Springs, Van Zandt Co., J. Salngva A-765	30.0	7.6	2		3.6		4.4			2.7	
*Pampa, Gray Co., 133&136 IGNRR	50.0	6.0	2						31.2		
Panola Co., Matthew Parker A-527	100.0	15.5	2		5.8	2.6	1.9				[2]41.6 [9]11.6
*Roberts Ranch, Midland Co., 16-43-3s T&PRR	85.0	65.4	7						220.6		
Robstown, Nueces Co., Simmons & Perry's subdiv of Ellifer Tract	65.0	15.6	2	13.2	4.1	1.9	1.8			5.3	
San Antonio Bay, Calhoun Co., Lot II Miguel Castillo A-7	12.4	2.1	2	2.1	1.5	0.6	0.5			1.1	
Stonewall Co., E. Borden, A-831	20.0	4.4	2		18.8		10.8			6.7	
Welch, Dawson Co., 67-M of EL&RRRR	2.5	1.6	2						16.4		
*West Seminole, Gaines Co., 355 G CCDS&RGN GRR	40.0	20.9	2						73.2		
West World, Crockett Co., 19-Q-GCSFRR	15.0	2.2	2						7.7		
Coates, George H. Estate of—Jay Simmons, Starr Co., San Jose Grant	5.0	2.0	2					3.5	2.0		
Colorado Interstate Gas Co.—Bivins, Moore Co., 33-PMC EL&RR	165.0	66.0	2						126.5		
Conoco Inc.—Chittim, Maverick Co., N.J. Chittim Ranch	5.0	1.8	3		4.1		4.3				[11]3.3
Hamlin, Fisher Co., H&TC B-1	20.0	8.7	3					55.9			
Port, Jefferson Co., 14-10-RI	175.0	3.8	2		0.9		0.7			0.4	[10]<0.1
Ramsey, Reeves Co., 36-38-1	10.0	2.5	3		2.9		2.2			2.0	
Rincon, Starr Co., 485, CCSD, R6N6RR	33.0	11.6	5		4.1		2.8			5.8	
CRA Inc.—Eldorado, Schleicher-Irion-Reagan Cos., 33-M-GH&SA	30.0	23.0	7						71.9		
Mertzon, Schleicher-Irion-Tom Green Cos., Tom Green CSL-1	30.0	15.5	7						80.4		
Quitman, Wood Co., S.G. Purse A-456	25.0	4.2	1						19.8		
Dalco Petroleum Corp.—Aspermont, Stonewall Co., ne4-222-H&TC RR-D	0.5	0.[illegible]	3						2.0		
Delta Drilling Co.—Ozona, Crockett Co., ne¼-LMN GC&SFRR	60.0	38.5	2		50.0		30.0				[11]38.6
Diamond Shamrock Corp.—McKee, Moore Co., 399-44 H&TC	375.0	317.0	2&7		312.1	56.5	134.6			142.7	[5]591.0
Dorchester Gas Producing Co.—Cargray, Carson Co., 46-4-I&GN, White Deer	30.0	29.0	7	17.5	25.4	5.7	12.3				[2]42.0
Sterling Co., 10-22-H&TC	28.0	25.0	3						33.8		
Texon, Reagan Co., 12-2 Univ. Land	5.0	2.0	3						7.5		
Woodlawn, Marian-Harrison Co., L. Watkins	100.0	20.0	1	2.8	5.7		4.1				[11]16.7
Eagle Petroleum Corp.—Holliday No. 2, Archer Co.	1.5	1.0	3	1.3	1.6	0.2	0.7			0.6	
KMA, Wichita Co., Rocky Point near Electra	5.0	0.9	3	0.3	0.8	0.2	0.5			0.5	
El Paso Natural Gas Co.—Jack Herbert, Upton Co., 102-D CCS D&RG NE RRC	10.0	NR	5						0.3		
Midkiff, Reagan Co., nw4&n2-sw4-22 T&PRR 37-5-5	168.0	73.9	1	72.3	144.8		74.9			60.1	
Puckett, Pecos Co., n2-n2-ne4-13-126 T&St. L RR	75.0	RR	5						0.3		
Santa Rosa, Pecos Co., Part S/2-105-B U&GRR	30.0	19.3	2						33.2		
Sealy Smith, Ward Co., nw4-43-A	17.0	NR	4						2.3		
Westlake, Nolan Co., e2-ne4-sw4&w2-nw4-se4 76-X T&P	25.0	3.0	1						17.4		
Wilshire, Upton Co., e2-ne4-ne4&ne4-se4-ne4 135-E CCS D&RG NGRR	30.0	NR	4						3.7		
Enserch Exploration Inc.—Carlsbad, Tom Green Co., Mason & Perry, subdiv of Collyns Ranch	4.0	1.5	3						1.4		
Gilliland, Knox Co., C of H&TC RR	14.0	10.7	3						7.[illegible]		
Gordon, Palo Pinto Co., Thomas Reed A-384	50.0	42.9	7						149.3		
Madisonville, Madison Co., Alfred Gee A-16	20.0	12.7	5						1.6		

	MMcfd			Production — 1,000 gal/day (Average based on the past 12 months							
Company, plant, location	Gas capacity	Gas through-put	Process method	Ethane	Prop.	Isobut.	Normal or unsplit butane	LP-gas mix	Raw NGL mix	Debut. nat. gaso.	Other
Needville, Fort Bend Co., Patrick H. Durst A-166	96.0	35.1	1						8.0		
Pueblo, Eastland Co., SPRR-464	20.0	18.2	7						67.6		
Ranger, Eastland Co., H&TC RR 4-4	7.0	4.5	2						13.0		
Red Oak, Leon Co., A.T. Kerr A-455	10.0	3.0	5						0.4		
Sonora, Sutton Co., D.H. Corbin 6-JK, A-1437 and A-1433	90.0	21.2	7						12.9		
Springtown, Parker Co., J. L. Hodges A-690	90.0	86.6	7						309.6		
Trinidad, Henderson Co., No. Addison A-17	65.0	68.8	7						120.9		
Etexas Producers Gas Co.—Smith Co., Stillwell Box A-169	6.0	3.0	1					3.0		2.2	
Exxon Co.—Anahuac, Chambers Co., H&TCRR, 51 A-112	290.0	181.2	2	43.0	31.0	10.5	9.3			24.3	[11]1.0
Clear Lake, Harris Co., James Lindsey	220.0	181.1	2	57.6	48.8	15.6	12.9			28.9	[11]1.9
Conroe, Montgomery Co., Random House	120.0	99.4	7	54.3	48.4	12.7	19.4			39.6	[11]3.0
East Texas, Rusk, T. J. Martin	25.0	10.0	2	24.9	56.0	11.9	28.8			27.8	[11]0.3
Hawkins, Wood Co., H. Watson	150.0	131.1	7	35.6	78.2	33.1	46.5			86.4	[11]3.4
Heyser, Calhoun Co., Agaton Sisneros	22.0	16.0	5							3.8	
Jourdanton, Atascosa, Edward Estes	26.0	19.0	1		3.0			4.0		6.6	[11]1.2
Katy, Waller Co., T. S. Reese 110, A-332	1,260.0	704.6	2	563.8	153.9	44.3	49.3			166.0	
Kellers Bay, Calhoun Co., N. Cavassos League A-2	47.0	7.0	2	0.1	3.1	1.3	1.1			2.1	
Kelsey, Brooks Co., La Blanca A-459	250.0	70.0	2	34.6	27.5	8.9	9.5				[10]21.9
King Ranch, Kleberg Co., R. King 172	2,650.0	1,314.0	2	150.9	159.4	72.3	62.9				[10]260.5
NE Loma Novia, Duval Co., J. Poitevent 213 A-923	46.0	7.0	2	3.9	4.2	1.1	1.4			2.1	
Neches, Cherokee Co., J. H. Shaw	40.0	23.6	2	11.0	28.3	6.4	16.5			22.4	[11]0.4
Pledger, Brazoria Co., W. C. Carson	210.0	173.1	7	84.4	38.1	11.2	6.7			66.7	
Pyote, Ward Co., 32-16 ULS	100.0	59.0	7						77.7		
Sand Hills, Crane Co., 18-32 PSL	65.0	53.0	7						179.3		
Santa Fe, Brooks Co., San Salvador del Tule A-290	47.0	9.0	2	4.1	2.1	0.9	0.7				[10]1.7
Sarita, Kenedy Co., J. A. Balli A-2	255.0	63.0	7	25.9	12.6	4.7	4.3				[10]9.0
Thompson, Fort Bend Co., John Rabb	40.0	32.5	7	9.4	6.8	1.1	1.9			3.3	
Tomball, Harris Co., C. Goodrich	80.0	60.0	2	19.7	12.6	3.8	4.5			18.2	[11]2.5
Tom O'Connor, Refugio Co., Maria Ximines A-324	150.0	144.0	1		16.4		22.8			43.1	[10]1.7
Gerlane Petroleum Co.—Mobeetie, Wheeler Co., 1 mile w of Mobeetie	12.0	2.5	2						5.0		
Getty Oil Co.—East Vealmoor, Howard Co., 20-27-H&TC	55.0	39.7	2		105.8	17.8	60.4		58.7		[5]183.5
El Paso, Carson Co., 88-4 I&GN RR	150.0	110.0	2						21.8		
Headlee, Ector-Midland Co., e half nw¼ 8-41-2s T&PRR Co.	15.0	4.0	1						17.7		
*Headlee Devonian, Ector-Midland Co., ne¼ of nw¼ 29-41-2s T&PRR	175.0	175.0	7						519.1		
Kingsmill, Gray Co., 174-3 I&GN RR	25.0	11.0	2						40.1		
New Hope, Franklin Co., Isaac Barre A-20	50.0	35.0	1		10.5		11.8			2.1	[11]70.5
Normanna, Bee Co., Thomas Duty A-21	32.0	9.0	2				2.8			1.6	[5]5.6
Schafer, Carson Co., 88-4 I&GN RR	30.0	13.5	1		21.7	8.6	23.1			22.7	[5]9.5
Spearman, Ochiltree Co., 23-R-B&B	50.0	NR	2		15.6				19.3		
Watkins, Hutchinson Co., 13-21 T&C RR	20.0	7.0	1						32.9		
West Bernard, Wharton Co., J. M. Rose Heirs A-322	30.0	9.0	1		1.2		2.3			3.9	
Gulf Energy & Development Corp.—Gonzales Co., 5 miles sw of Gonzales	5.0	0.8	3						2.0		
Palo Pinto Co., 14 miles s of Mineral Wells, Tex.	12.0	12.0	7						43.0		
*Rio Drybed, Starr Co., 10 miles n of Rio Grande City	130.0	90.0	5							2.4	
Rio Grande City, Starr Co., 10 miles n of Rio Grande City	40.0	40.0	2		2.1		2.3			2.0	
Runge, Karnes Co., 8 miles s of Runge	40.0	25.0	2	22.0	15.0	2.9	5.3			4.8	
HNG Petrochemicals Inc.—Bammel, Harris Co., HT&BRA A-420	100.0	25.9	2	18.4	9.1		3.8			2.5	
Gregory, San Patricio Co., Geranimo Valdez A-269	70.0	38.1	2		24.1		17.5			9.2	
Liverpool, Brazoria Co., Day Lane & Cattle Co. A-601	24.0	7.8	2						4.7		
Loma Blanca, Brooks Co., Loma Blanca Grant F. G. Chapa A-98	25.0	6.6	2								8.9
Robstown, Nueces Co., Mathis Garcia A-116	75.0	40.2	2	8.4	15.5		11.4			7.1	
Sonora, Sutton Co., HE&WT RR A-352	50.1	59.8	2								45.7
Tuleta, Bee Co., Brooks & Burleson	45.0	16.8	1					11.5	10.8		
Victoria Co., James Reed A-236	94.0	36.0	2		6.6		6.9			5.2	
Houston Oil & Minerals Corp.—Giddings, Lee Co., J. Vashary League A-329	5.0	3.5	3						6.6		
Smith Point, Chambers Co., S. Parr A-162	105.0	105.0	5							11.6	
South Liberty, Liberty Co., E. Munson League	18.0	10.5	3						2.4		
Texas City Dike, Galveston Co., T. G. Western A-204	50.0	35.0	7						26.5		[5]43.0

	MMcfd			Production — 1,000 gal/day (Average based on the past 12 months							
Company, plant, location	Gas capacity	Gas throughput	Process method	Ethane	Prop.	Isobut.	Normal or unsplit butane	LP-gas mix	Raw NGL mix	Debut. nat. gaso.	Other
Hunt, H.L. Estate—*Pecos Valley, Pecos Co., 106-T&St. L.	10.0	3.0	3						2.7		
Hunt Oil Co.—*Fairway, Henderson Co., Jose Mora A-497	87.5	86.0	2						206.0		
Irion County Gasoline—Irion Co., 8 miles n of Barnhart, Tex.	16.0	10.0	2						60.0		
Kerr-McGee Corp.—Hobart Ranch, Hemphill Co., 70 A-2	43.5	NR	7						95.3		[11]16.0
Pampa, Gray Co., 5163 B-3 I&GN	24.0	NR	2						38.8		
Koch Hydrocarbon Co.—Sterling Co., 141-2 H&TC RA	5.0	2.1	3						7.9		
Ladd Petroleum Corp.—Ozona, Crockett Co., Z	26.0	18.2	2						73.0		
Liquid Products Recovery Inc.—East Ramsey, Colorado Co.	15.0	4.0	3						4.0		
Mapco Inc.—Westpan 950, Hutchinson Co., 92-Y2-TTRR	50.0	44.3	2						165.2		
Westpan 1000, Hutchinson Co., 92-Y2 TTRR	145.0	84.3	2						160.9		
Marathon Oil Co.—Markham, Matagorda Co., 4-9-9	165.0	22.0	2					45.1			
Susan Peak, Tom Green Co., 193 SP RR-11	3.0	2.8	3		1.9			3.1			
Welder, San Patricio Co., 49 Robert Montgomery 199 and Ewan Cameron A-97	55.0	15.2	1					3.3			
Yates, Pecos Co., I.G. Yates. 194 SF 1234-1	25.0	17.8	2		5.1			28.1			
Matrix Land Co.—Box-Elmdale, Callahan Co., 4 miles e of Abilene	4.0	2.0	3						5.0		
Tuscola, Taylor Co., 2 miles w of Tuscola	3.0	1.5	3						1.5		
Mills Bennett Estate—Brooks Co., 15 miles w of Falfurrias	6.0	0.6	3					1.1			
Mitchell Energy & Development Corp.—											
Barton Chapel, Jack Co.	15.0	11.5	7						31.7		[11]1.2
Bridgeport, Wise Co.	203.0	130.0	2		119.5	20.7	39.4		253.8	60.1	[11]19.2
Cisco, Eastland Co.	15.0	22.5	7						57.8		[11]3.2
Devil's River, Sutton Co.	5.0	2.1	3						3.3		
Galveston Co.	15.0	9.5	7						11.9		
Gibtown, Jack Co.	15.0	15.0	7						47.9		[11]2.3
Huckabay No. 1, Erath Co.	15.0	17.8	7						55.6		[11]0.5
Huckabay No. 2, Erath Co.	15.0	17.8	7						55.6		[11]0.5
La Sal Vieja, Willacy Co.	15.0	6.5	7						9.0		
Lone Camp No. 2, Palo Pinto Co.	10.0	10.2	7						36.6		[11]0.3
Lone Camp No. 3, Palo Pinto Co.	10.0	10.2	7						36.6		[11]0.3
Lone Camp No. 4, Palo Pinto Co.	30.0	17.9	7						64.3		[11]0.6
Mesquite Bay, Aransas Co.	10.0	2.2	6						3.7		
Mineral Wells No. 2, Palo Pinto Co.	15.0	14.0	7						46.9		[11]2.9
Morgan Mill No. 1, Erath Co.	15.0	15.0	7						39.0		[11]0.7
Morgan Mill No. 2, Erath Co.	15.0	10.5	7						38.8		[11]0.6
Ponder, Denton Co.	2.0	2.5	6						7.4		[11]0.1
Ranger, Eastland Co.	10.0	8.0	7						28.4		[11]1.6
Seven Oaks, Polk Co.	20.0	12.2	2						23.5		
Springtown, Parker Co.	15.0	13.5	7						35.3		[11]0.6
Sutton Co.	10.0	4.5	7						15.8		[11]0.8
Mobil Producing Texas & New Mexico Inc.—											
Canadian, Hemphill Co., ne cor of David Crockett	55.0	22.0	7						45.0		
*Coyanosa, Pecos Co., 48-OW TTRR	300.0	154.0	2&7						220.0		
Desdemona, Eastland Co., J. W. Carruth Farm, W. H. Funderburg A-139	1.3	0.9	3					2.2		7.3	
Electra, Wilbarger Co., 17-13 H&TC RR	1.4	0.8	3					7.5	5.8		
Hagist, Duval Co., BS&F 267	70.0	32.0	1						35.0		
LaGloria, Jim Wells Co., 9-3 Ragland & Herring subdiv LaGloria Townsite subdiv	320.0	158.0	7	146.7	73.3	19.0	19.4			48.8	[11]32.6
*Pegasus, Midland Co., e2-30-40-45 T&PRR	94.0	92.0	7	65.4					230.7		[11]1.3
Salt Creek, Kent Co. W&NW RR G-193	28.0	17.0	3						205.1		
Seeligson, Jim Wells Co., Los Jaboncillos Grant-Antonio Ramirez	320.0	169.0	7	106.2	42.3	12.3	11.1			46.5	[11]5.0
Vanderbilt, Jackson Co., R. Musquex A-59	95.0	127.0	2&5								[5]16.2 [9]1.3 29.0
Waha, Pecos Co., 5-C3 PSL	175.0	125.0	7						202.1		
Wilcox, Lavaca Co., J. R. Ragsdale A-377	255.0	52.0	2	25.4	27.8		14.7			13.4	
Monsanto Co.—Diamond M, Scurry Co., 182-97 H&TC	55.0	23.0	3	78.7	104.6		49.3		33.6		
Natural Gas Pipeline Co. of America—*PP 161, Hutchinson Co., 5-Y2-TTRR	240.0	155.0	5						5.7		
*PP 162, Moore Co., 1-TTRR	240.0	91.0	5						11.8		
Northern Gas Products—Lipan, Hood Co., J. R. Anderson A-11	15.0	2.7	6&7						8.2		
Martin Co. No. 1, 31-37-2n T&PR	10.0	3.8	3					20.0			
Martin County No. 2 4-HA	5.0	1.9	3						11.0		
Northern Natural Gas Co.—Spearman, Ochiltree Co., 23 B&RR	200.0	100.0	3							18.2	

Company, plant, location	MMcfd Gas capacity	MMcfd Gas through-put	Process method	Production — 1,000 gal/day (Average based on the past 12 months) Ethane	Prop.	Isobut.	Normal or unsplit butane	LP-gas mix	Raw NGL mix	Debut. nat. gaso.	Other
Odessa Natural Corp.—Foster, Ector Co., 18-42-25 T&PRR	24.0	22.0	7	38.5	50.5		28.3			22.0	
Ozona Gasoline Plant Operators—Ozona, Crockett Co., 13 miles sw of Ozona	4.0	3.5	3							6.0	
Palo Pinto Oil & Gas Co.—Markley, Jack Co., SPRR A-583	4.0	1.0	3						4.5		
Parade Co.—Giles, Rusk Co.	7.5	3.5	1&4		20.0				20.0		
Permian Corp.—Alba, Wood Co., Lat 32° 46′ 52″ Long. 95° 37′ 8″	2.0	1.0	4					7.9	14.6		
Possum Kingdom, Stephens Co., E. Romerhausen A-149	5.0	1.5	3					2.8	2.2		
Todd, Crockett, 28-WX GC'SF	5.0	2.0	3					13.5	1.1		
Perry Gas Processors Inc.—Barstow, Pecos Co., 154-34	25.0	5.0	5								
Dimmit Co., 478 A-605-479 A-66 480 A-709-481 A-667	10.0	4.0	1								
El Dorado, Schleicher, 7-A	5.0	3.0	1								
Hemphill Co.	35.0	14.0	5								
Hokit, Pecos Co., 127	15.0	4.0	5								
LaSalle Co.	5.0	3.0	1								
Pyote Devonian, Ward Co., 31-16	225.0	120.0	1								
Pyote Ellenberger, Ward Co., 31-16	40.0	38.0	1								
Rosita, Duval Co.	35.0	30.0	1								
Thompsonville, Jim Hogg Co.	30.0	8.0	5								
Zapata Co.	10.0	4.5	5								
Petroleum Corp. of Texas—Ibex, Shackelford Co., nw 28 Bal Shackelford Co.	10.0	6.0	1		11.4				11.2		
South Bend, Young Co., J. Garrett	8.0	6.0	1		13.4				15.8		
PGP Gas Products Inc.—Imperial, Crane Co., 21-H&TC RR-1	18.0	14.0	7						45.0		
Phillips Petroleum Co.—Adamc, Crane Co., ne4-216-F CCSD & RGNG RR	15.0	NR	7								
Andrews Co., w2 nw4-19-A-46 PSL	115.0	NR	2								
Benedum, Upton Co., w2-se4-46-1 MK&T	85.0	NR	7								
Brazoria Co., nw4-5-HT&B A-221	55.0	NR	7								
Crane Co., ne4-216-F CCSD&RGNG RR	20.0	NR	6								
Dumas, Moore Có., nw4-181-44 H&TC	120.0	NR	7								
Fullerton, Andrews Co., Center S-17-A-32 PSL	55.0	NR	7								
Goldsmith, Ector Co. nw4-se4-33-44 T&P-In	370.0	NR	7								
Gray Co., e2-32-2 H&GN	74.0	NR	2								
Hansford Co., 7&8-1 PSL	170.0	NR	1								
Henderson, Rusk Co., sw portion A. H. Crain-Anderson Tract	20.0	NR	1								
Luling, Caldwell Co., north corner John Henry A-12	12.0	NR	7								
Pantex, Hutchinson Co., 8&9 M. Whitley	20.5	NR	7								
Puckett, Pecos Co., n2-26-101 TCRR	250.0	NR	5								
Rock Creek, Hutchinson Co., nw4-22-y A&B	180.0	NR	7								
Sanford, Hutchinson Co., s2-n2-w2-s2-82-46 H&TC	150.0	NR	1								
Sherman, Hansford Co., 7&8-1 PSL	340.0	NR	7								
Sneed, Moore Co., w2-nw4 Freeman Brazemore	250.0	NR	1								
Spraberry, Midland Co., se4-25-3s-37 T&P	25.0	NR	7								
Pioneer Gas Products Co.—Arrington, Hemphill Co., A-2-62	40.0	31.5	2					29.7			
E. Goldsmith, Ector Co., 34-34	35.0	10.6	2&7					32.4		4.1	
Fain, Potter Co., G&M 10-181B	130.0	73.5	2		43.3		53.7			41.9	
Pampa, Gray Co., H&GN 96-B2	60.0	13.2	2		9.5				14.5		
Turkey Creek, Potter Co., G&M 36-M-2	100.0	45.9	2		39.8		36.4			33.5	
Shell Oil Co.—*Bryans Mill, C- Co., B. F. Lynn A-651	70.0	59.5	2		37.0				54.3		[11]217.8
Conley, Hardeman Co., 80-H W&NWRR	6.0	0.1	3		2.3		1.0			1.0	
Houston Central, Colorado Co., F. Mayhar A-400 K. Winn A-589	285.0	155.0	2	105.0	69.5	18.7	24.0			31.5	[11]48.0
Ozona, Crockett, 46-OP GC&SFRR	10.0	7.3	3					13.9		4.6	
Person, Karnes Co., Jesus Hernandez, A-140	60.0	20.0	2		3.3		2.5			3.0	[11]0.7
Tippett, Crockett Co., 28-31-H&TCRR	35.00	35.0	6	55.6	36.4				34.8		
TXL, Ector, 17-45-1e T&PRR Co.	40.0	29.0	2	39.0	51.6		24.5			19.2	
Wassom, Yoakum Co., 827&802-D John Gibson	175.0	130.0	1&2	275.0	396.0				401.0		
Sid Richardson Carbon & Gasoline Co.—Halley, Winkler Co., 22-B11-PSL	60.0	60.0	7					175.0			
*Keystone, Winkler Co., 5-B2-PSL	125.0	105.0	7					250.0			
Southwest Forest Gas Plant—Rocker B, Reagan Co., 17 miles ne Big Lake	16.0	8.0	7						48.0		
Stiles Gasoline Plant—Reagan Co., 5 miles nw of Texon	6.0	4.6	3						16.0		
Suburban Propane Gas Corp.—Martha F. Berry, Frio Co., M. C. Patton, 1178 A-542	21.0	5.0	2		2.9		2.7		2.4		
Sun Gas Gathering Co.—Graham, Young Co.	10.0	4.5	3						6.7		
Olney, Archer Co.	3.0	1.5	3						4.2		

	MMcfd			Production — 1,000 gal/day (Average based on the past 12 months							
Company, plant, location	Gas capacity	Gas through-put	Process method	Ethane	Prop.	Isobut.	Normal or unsplit butane	LP-gas mix	Raw NGL mix	Debut. nat. gaso.	Other
Sun Gas Co.—*Big Wells, Dimmitt Co., I&GN A-223 82-1	20.0	26.0	2		20.5		18.0			13.0	
Concho Co., 153-72-T&N	10.0	2.6	2		4.7				2.1		
Jameson, Coke Co., 315-1A N&TCRR	50.0	43.3	2	72.1	82.5		41.3			29.0	
Kurten, Brazos Co., James Simpson A-208	35.0	2.3	2						7.6		
Luby, Nueces Co., 9-G Part Petronilla Ranch	10.0	6.7	2					3.7		2.1	[11]2.8
Red Fish Bay, San Patricio Co., R. W. Williamson	140.0	37.0	2					26.8		10.7	
Snyder, Scurry Co., 16-1 J. P. Smith	150.0	77.0	3		164.5	29.8	81.0		584.9	90.1	
Sun, Starr Co., 239 AB-225 CCSdr Rqn Grr	92.0	75.2	2		40.5		24.8		33.7		[5]37.2 [10]0.2
Tijerina-Canales, Jim Wells Co., 343 CCSD&RGNG	75.0	34.0	2		4.5		9.8			3.8	[5]11.2
Victoria Co., Felipe Dimmitt A-20	45.0	18.0	2						24.8		
Superior Oil—Portilla, San Patricio, 19-20e-15s	15.0	13.5	2					20.0			
Tenneco Oil Co.—Chesterville, Colorado Co., Thomson A-708	55.0	20.3	2		14.5	3.7	4.6		6.2		
Leabo, Matagorda Co., sw¼-17 A-351	95.0	8.2	2						9.8		
Ward, Hidalgo Co., Porcion 68, Gregario Vomacho A-28	140.0	42.0	2		9.0		6.4			11.6	[2]1.1
Texaco Inc.‡—Blessing, Matagorda 59-C, J. E. Pierce sub E&GN	65.0	NR	2		20.0		15.0		47.3		
Encinitas, Brooks Co., nw 14 San Antonio Grant A-214	17.0	NR	2		24.0						
Fuller, Scurry Co., 642-97 H&TCRR	58.0	NR	2		58.0		46.0		227.5	59.0	
Handy, Grayson Co., se4-A-1441 IG&NRR	10.0	NR	2						48.6		
Humble, Harris Co., J. B. Stevenson Fee A-703 B-4	4.0	NR	6						14.0		
Lamesa, Dawson Co., 36-34-5n T&PRR	6.0	NR	3		10.0				15.0		
Lockridge, Ward Co., 101-34 H &TC RR	47.5	NR	2						21.1		
Mabee, Andrews Co., 32-40-21 39-2n	20.0	NR	2						104.4		
Ozona, Crockett, 3-MNGC&SE RR	25.0	NR	7						96.0		
South Kermit, Winkler Co., 22-22 B-3 PSL	35.0	NR	2		7.3				33.0		
Tijerina, Jim Wells Co., A. Canales 300 A-79	35.0	NR	2				9.3				[5]36.0
Texas Oil & Gas Corp.—Coyanosa, Pecos Co., 18-143 T&SL	75.0	80.0	7						208.0		[11]2.2
Denton Co., BBB & CRC A-161	30.0	10.0	2						24.0		[10]0.3
East Texas, Marion Co., John H. Kernels A-236	75.0	65.0	7		30.0		25.0			18.0	[10]0.4
Laredo, Webb Co., Portion 14 N. D. Hachas Estate	30.0	20.0	2					14.0		6.0	
Shackelford Callahan Co., 23&24 BOH Land	30.0	24.0	2						57.0		[11]3.5
Tipperary Corp.—Claytonville, Fisher Co., 211-3 H&TC RR	18.0	6.0	2						40.0		
Pearsall, Frio Co., 1-A307 Henry Castro	8.0	5.0	3						18.5		
Union Oil Co. of California—Bakke, Andrews Co., 20-A44 PSL	19.0	2.8	2						14.0		
Dollarhide, Andrews Co., 25-A52 PSL	13.0	11.7	6						102.0		
*Fort Trinidad, Houston Co., RCS A-23	40.0	14.4	2		12.6	8.2				6.8	
Van, Van Zandt Co., JWS A-891	15.0	10.4	2		14.4		17.2			17.2	
Union Texas Petroleum Corp.—Benedum, Upton Co.	55.0	17.0	2	35.5	28.4		13.8			13.2	
Perkins, Coke Co.	25.0	24.0	7						130.9		
Walnut Bend, Cooke Co.	28.0	1.0	6&7						33.6		
Wellman, Terry Co.	4.0	1.0	6&7						12.6		
United Texas Transmission Co.—Galveston, Chambers Co., J. Armstrong A-2	40.0	17.0	7					20.3			[10]0.7
Upham Oil & Gas Co.—Bridgeport, Wise Co., Wm. Hersee	10.0	3.4	2		6.8		4.1			3.4	
Valero Hydrocarbons Co.—Corpus Christi, Nueces Co.	200.0	185.0	2	60.0	70.0	20.0	22.0			40.0	
Freer, Webb Co.	190.0	25.0	2		5.0		6.0			8.0	
Garden City, Glasscock Co.	50.0	50.0	3						65.0		
Gholke, DeWitt Co.	200.0	190.0	2&7	180.0	100.0		45.0			30.0	
Hidalgo Co.	80.0	8.0	2		2.0	3.0	4.0				
Mission, Hidalgo Co.	30.0	20.0	2						12.0		
San Antonio, Bexar Co.	120.0	110.0	7						75.0		
Ventech Gas Processing Inc.—Twin-Tech, Garza Co.	5.0	NR	2						1.0		
Warren Petroleum Co.—Azalea, Midland Co., 2-38-3s	NR	9.0	6						44.0		
Breckenridge, Stephens Co., n2-22 LAL	NR	6.0	3						30.0		
Canadian, Hemphill Co., 216 G&MMB&A-C	NR	22.0	6						44.0		
Como, Hopkins Co., Nacogdoches Univ. A-703	NR	6.0	2		5.0				17.0		
Encinal, San Patricio Co., 18 of George H. Paul subdiv of Coleman Fulton Pasture lands	NR	7.0	2						4.0		
Fannett, Jefferson Co., Marrs McLean Tract in Wm. H. Smith League A-198	NR	24.0	2						3.0		[5]14.0
Fashing, Atascosa and Karnes Cos., Emma Tar H. et al, tract in James Wilkerson 149 A-882	NR	33.0	2		10.0				19.0		
Gladewater, Gregg Co., David Ferguson	NR	10.0	7						84.0		[5]77.0
Halley, Winkler Co., 90-A G&MMB&A	NR	3.0	7						9.0		

Company, plant, location	MMcfd			Production — 1,000 gal/day (Average based on the past 12 months							
	Gas capacity	Gas through-put	Process method	Ethane	Prop.	Isobut.	Normal or unsplit butane	LP-gas mix	Raw NGL mix	Debut. nat. gaso.	Other
La Reforma, Hidalgo Co., San Ramon Juan Farias A-62	NR	3.0	7						4.0		
McLean, Wheeler Co., 33-24 H&GN RR.	NR	7.0	6						49.0		
Monahans, Ward Co., 4-F	NR	25.0	7						81.0		
Moores Orchard, Fort Bend Co., German Emigration No. 8	NR	11.0	2						19.0		
North Port Neches, Orange Co., Lillian Pevito tract in John Stephenson A1169	NR	2.0	7						3.0		
Sand Hills, Crane Co., 21-PSL B-21	NR	57.0	2						126.0		
Shackelford Co., TE&L 522&523	NR	7.0	3						27.0		
Spear, Gregg & Rusk Co., Mary Van Winkler	NR	2.0	7						12.0		§11.0
Terry Co., 6-D-14 C&M RR	NR	1.0	3						3.0		
Tolar, Hood Co., Lewis Boatright A-33	NR	3.0	7						13.0		
Tonkawa, Hemphill Co., 78-41 H&TC RR	NR	3.0	6						4.0		
Waddell, Crane and Ector Cos., 25-B-25	NR	71.0	2		15.0				277.0		
Worsham, Ward Co., 56-34-H&TC RR	NR	13.0	7						21.0		
Wright, Dawson Co., 8-1 J. Poitevent	NR	1.0	3						1.0		
Total	**24,646.9**	**14,593.2**		**3,355.2**	**4,736.2**	**551.9**	**2,029.5**	**826.3**	**9,729.5**	**2,489.9**	**2,520.5**

†Fractionation. (Figures in parenthesis do not represent primary production, and are not added in state totals). ‡All figures are capacity.

UTAH

Company, plant, location	Gas capacity	Gas through-put	Process method	Ethane	Prop.	Isobut.	Normal or unsplit butane	LP-gas mix	Raw NGL mix	Debut. nat. gaso.	Other
Chevron USA Inc.—Red Wash. Unita Co.	38.0	9.0	3							2.8	
El Paso Natural Gas Co.—Aneth, San Juan Co., nw4-6-41s-24e	100.0	NR	1		16.9				46.2	19.5	
Gary Energy Corp.—Altonah, Duchesne Co., sw-nw5-2s-3w	12.5	2.5	3		2.8		2.5		27.3		
Bluebell, Duchesne Co., sw-nw-23-1s-2w	23.0	13.6	2		17.0				27.3		
Koch Hydrocarbon Co.—Cedar Rim, Duchesne Co., 21-35-6w	10.0	7.0	3		5.5		4.5			9.3	
Mountain Fuel Supply Co.—Chalk Creek, Summit Co., 16-3n-8e	80.0	38.5						6.4			
Quasar Energy Inc.—Pineview, Summit Co., 3-2n-7e	10.0	11.3	3		31.9				48.3		
Shell Oil Co.—Altamont, Duchesne Co., 34-1s-4w	40.0	13.9	3		13.1		8.6			29.8	
Union Oil Co. of Calif.—*Lisbon, San Juan Co., 22-30s-24e	80.0	51.9	3		33.2		21.2			12.6	
Total	**393.5**	**227.7**			**120.4**		**36.8**	**6.4**	**121.8**	**75.7**	

WEST VIRGINIA

Company, plant, location	Gas capacity	Gas through-put	Process method	Ethane	Prop.	Isobut.	Normal or unsplit butane	LP-gas mix	Raw NGL mix	Debut. nat. gaso.	Other
Columbia Gas Transmission Corp.—Cobb, Kanahwa Co., Big Sandy district	35.0	32.8	2						103.4		
Kenova, Wayne Co., Ceredo district	1 70.0	102.9	2						195.4		
Consolidated Gas Supply Corp.—Hastings, Metzel Co.	150.0	98.0	3	177.0	95.0	18.0	33.0			35.0	
Pennzoil Exploration and Production Co.—*13 small plants	13.0	3.9	2&3						10.7		
Total	**368.0**	**237.6**		**177.0**	**95.0**	**18.0**	**33.0**		**309.5**	**35.0**	

WYOMING

Company, plant, location	Gas capacity	Gas through-put	Process method	Ethane	Prop.	Isobut.	Normal or unsplit butane	LP-gas mix	Raw NGL mix	Debut. nat. gaso.	Other
Amoco Production Co.—*Bairoil, Sweetwater Co., 7-26n-90w	5.0	3.9	2		4.2				10.6		
Beaver Creek, Fremont Co., 10-33n-96w	65.0	37.6	2		10.2		9.5			9.9	
Elk Basin, Park Co., 29-58n-99w	33.0	12.0	1		11.0		15.0		22.0		
Ryckman Creek, Uinta Co., e2-13-17n-119w-6 pm	12.0	13.6	3		22.2		12.3			10.8	
Arco Oil & Gas Co.—Gillette, Campbell Co., 18-50n-73w	31.0	9.3	3		22.2		12.3			10.8	
Riverton Dome, Fremont Co., 36-1s-4e	30.0	6.5	2						2.0		
Champlin Petroleum Co.—*Brady, Sweetwater Co.	65.0	NR	2		25.5		27.6			18.4	
Manning, Converse Co.	4.0	0.7	3						2.3		
Patrick Draw, Sweetwater Co.	30.0	14.1	2		12.6	1.8	6.2			4.2	
Chevron USA Inc.—Birch Creek, Sublette Co.	20.0	14.0	5							1.5	
Cities Service Co.—Red Desert, Sweetwater Co., 7-19n-96w	48.0	21.7	7		15.7					13.3	
Thundercreek, Campbell Co., 24-43n-69w	18.0	6.2	7						15.6		
Colorado Interstate Gas Co.—Rawlins, Carbon Co., sw4-sw4-25-21n-86w	220.0	185.0	2		53.8		35.5		22.2		
Conoco Inc.—Sussex, Johnson Co., 243-41n-78w	15.0	1.2	3		1.6				2.1		
Cra Inc.—Gillette, Campbell Co., 1-49n-74w.	6.0	2.5	3		4.7						
Ecological Engineering Systems Inc.—Hartzog Draw, Campbell Co., nw4-ne4-11-45n-76w 6pm	5.0	2.5	3						7.0		4.6
Springen, Crook Co., se4-se4-28-51n-71w 6pm	8.0	0.2	3		1.0			1.5			
Gas Producing Enterprises Inc.—Patrick Draw, Sweetwater Co., 12-19n-99w	12.0	7.5	2		1.9		1.2			0.4	
Energy West Ltd.—Manderson, Big Horn Co., sw¼-sw¼-se¼-19-50n-92w	1.5	0.7	3						0.6		
Husky Oil Co.—Ralston, Park Co., sw¼-3-56n-101w, 6 pm	7.0	2.9	3		0.1		0.8			1.0	

	MMcfd			Production — 1,000 gal/day (Average based on the past 12 months							
Company, plant, location	Gas capacity	Gas throughput	Process method	Ethane	Prop.	Isobut.	Normal or unsplit butane	LP-gas mix	Raw NGL mix	Debut. nat. gaso.	Other
Inexco Oil Co.—Converse Co., 9-35n-70w	6.0	NR	2		15.5			16.6			
Kansas-Nebraska Natural Gas Cl—Casper, Natrona Co., 10-33n-78w	80.0	42.1	2		15.5		9.4			7.1	
Flat Top, Converse Co., 20-33n-68w	6.0	2.4	2		3.3				3.6		
Marathon Oil Co.—Lance Creek, Niobrara Co., 32-36n-65w	4.2	2.1	3						5.5		
Rock River, Carbon Co., 34-19n-78w	2.5	0.2	4						0.3		
McCulloch Gas Processing Corp.—Hilight, Campbell Co., 26-45n-71w	60.0	12.0	3		16.0				64.0		
Oedekoven, Campbell Co., 30-55n-73w	12.5	4.0	3		6.0				8.0		
Rocky Point, Campbell Co., 34-57n-76w	6.0	1.0	5						0.3		
Well Draw, Converse Co., 26-35n-69w	3.0	1.0	3		2.5				3.0		
Mitchell Energy & Development Corp.—Converse Co.	1.5	0.6	3						3.6		[11]0.1
Mountain Fuel Supply Co.—Church Buttes, Uinta Co., 1-16n-113w	100.0	21.3	1							4.4	
Church Buttes, Uinta Co.	3.5	0.4							1.3		
Natomas North America Inc.—Recluse, Campbell Co., 15-56n-74w	9.0	2.5	3		7.6				7.2		
Northwest Pipeline Corp.—Opal, Lincoln Co., 27-21n-114w	250.0	165.9	2		89.6		35.4			37.7	
Phillips Petroleum Co.—Douglas, Converse Co., se4-ne4-34-33n-71w	75.0	NR	7								
Quasar Energy Inc.—Spearhead, Converse Co., w2-13-39n-75w	25.0	17.4	2		15.0				23.9		
Ralston Processing Associates Inc.—Oregon Basin, Park Co., nw4-B-52n-100w	6.0	4.1	2		2.1		2.5	4.3	2.3		
Sun Gas Co.—Grieve, Natrona Co., 22-32n-85w	10.0	10.2	2						22.7		
Powell, Converse Co., 22-40n-74w	12.0	5.6	3						11.2		
Union Oil Co. of California—Worland, Washakie Co., 17-48n-92w	50.0	17.3	1		17.0		6.0			7.9	
Total	**1,357.7**	**769.0**			**363.3**	**1.8**	**172.5**	**22.4**	**261.1**	**116.6**	**4.7**
ABU DHABI											
Abu Dhabi Gas Liquefaction Co.—Das Island LNG-LPG	450.0	270.0	6&7		302.6		213.4			90.4	†1,749.4
†LNG.											
ALGERIA											
Sonatrach—Camel plant, Arzew	NR	170.0	4&7					218.6			
Hassi R'Mel, Laghouat, Module 0	NR	1,578.0	NR								[11]2,309.0
Hassi R'Mel, Laghouat, Module 1	NR	2,085.2	6								[11]3,140.2
Skikda	NR	435.0	4&7					414.2			
Total	**5,335.2**	**4,268.2**						**632.8**			**5,449.2**
ARGENTINA											
Gas del Estado—Cañadon Seco, San Jorge, Caleta Olivia, Santa Cruz	21.2	21.6	1		5.0		†9.2			6.7	
Caimancito Norte, Ledesma, Jujuy	35.3	5.7	1		5.7		†3.5			1.0	
Centenario, Neuquen	21.2	20.8	1		7.8		†9.2			6.9	
General Cerri, Neuquen and Austral, Bahia Blanca	176.6	129.2	1		52.5		†40.5			20.1	
El Medanito, Neuquen, Rio Negro	35.3	38.6	1			‡5.1				10.0	
Total	**289.6**	**215.9**			**71.0**	**5.1**	**62.4**			**44.7**	
†Includes isobutane. ‡Includes propane and n-butane. Note: Caimancito capacity is in two modules.											
AUSTRALIA											
Esso Eastern Inc.—Gippsland No. 1 and 2, Offshore, near Sale, Victoria	810.0	406.0	2&7	431.0	572.0		329.0				[11]591.0
AUSTRIA											
OeMV AG—Piberbach, Upper Austria	0.5	0.5	3						0.1		
Roseldorf, Niederosterreich	3.5	2.0	3						0.7		
Total	**4.0**	**2.5**							**0.8**		
BAHRAIN											
Bahrain National Gas Co.—Bahrain	110.0	110.0	2	56.3	133.0	21.5	76.9			183.8	
BOLIVIA											
Yacimientos, Petroliferos Fiscales Bolivianos—*Colpa plant, Andres Ibanez Province, Santa Cruz	192.0	110.0	1						10.0		
*Rio Grande plant, Cordillera Province, Santa Cruz	282.0	270.0	1						22.6		
Total	**474.0**	**380.0**							**32.6**		

Company, plant, location	MMcfd Gas capacity	Gas throughput	Process method	Production — 1,000 gal/day (Average based on the past 12 months) Ethane	Prop.	Isobut.	Normal or split butane	LP-gas mix	Raw NGL mix	Debut. nat. gaso.	Other
BRAZIL											
Petroleo Brasileiro SA—Candeias, Bahia	70.0	74.0	2						104.5		
Catu, Bahia	50.0	58.0	2						126.9		
Total	**120.0**	**132.0**							**231.4**		

Canada

ALBERTA

Company, plant, location	MMcfd Gas capacity	Gas throughput	Process method	Production — 1,000 gal/day (Average based on the past 12 months) Ethane	Prop.	Isobut.	Normal or split butane	LP-gas mix	Raw NGL mix	Debut. nat. gaso.	Other
Alberta Natural Gas Cl—Cochrane, ne¼-16-26-4-5—w5	300.0	925.0	2&7	919.0	243.0	47.0	68.0			53.0	
Altana Exploration Co.—Caroline, 12-36-34-6-w5	13.0	3.4	2					8.8		11.6	
Monitor, 10-3-35-4-w4m	5.0	1.1									
Niton, 10-16-55-13-w5	5.0	0.8						0.6		2.5	
Saddle Lake, 16-26-57-13 w4	5.0	0.9									
Amerada Minerals Corp. of Canada Ltd.—Ferrier, sw¼-2-6-41 w5	100.0	NR	2		71.5		38.0			44.4	
Garrington, 20-34-3 w5	4.0	2.0								8.7	
Olds, 3-18-32-1 w5	85.0	NR	2		14.2		9.6			20.1	
Amoco Canada Petroleum CL—Ante Creek, 10-18-65-23 w5m	10.0	2.6	3						19.8		
Berrymoor, 3-2-50-6 w5m	10.0	8.0	3								[11]4.0
Bigoray, 6-28-51-8 w5m	12.5	9.0	3								[11]0.8
Bigstone, 1-10-21-27 w5m	48.0	37.5	3								
East Crossfield, 9-14-28-1 w5m	160.0	114.0	1-3-4								[11]12.0
Fir, 32-58-21 w5m	52.0	38.0	1								
Josephine, ne¼-1-83-10 w6m	50.0	12.0	3								[11]7.3
Lanaway, 5-36-4 w5m	15.0	6.5	1&4								
Leismer, 16-23-77-9 w5m	32.5	30.0	1&4								
Lobstick, 9-17-50-7 w5m	24.0	15.0	3						6.7		
Marten Hills, 18-76-25 w4m	133.0	82.0	1								
Mitsue-Nipisi, 30-72-4 w5m	25.0	12.0	3						161.0		
Penbalta 1, 9-25-47-7 w5m	11.0	1.6	3								
Penbalta 2, 9-15-47-7 w5m	11.0	2.9	3					21.0			
Penbalta 5, 4-2-48-7 w5m	11.0	4.3	3					14.5			
Penbalta 7, 4-28-47-9 w5m	11.0	4.1	3					16.0			
Penbalta 8, 4-5-49-9 w5m	11.0	3.9	3					31.0			
*Ricinus, 11-30-35-8 w5m	75.0	63.0	7						160.0		
Ricinus D Battery, 4-11-34-8 w5m	20.0	5.0	1&4								
Sedalia, sw26-30-4 w4m	8.5	4.0	1-3-4								[11]0.1
Three Hills Creek, nw4-13-35-26w4	12.0	7.4	3						11.9		
Twining, 6-16-32-24 w4m	6.0	4.0	1&5								[11]1.7
Waskahigan, ne1-64-23 w5m	17.0	7.0	5								
West Whitecourt, 8-17-60-15 w5m	160.0	136.0	1-3-4								[11]250.0
Anderson Exploration Ltd.—Belloy, LSD 13-78-1 w6m	20.0	12.0	4&5							0.5	
Dunvegan, LSD 15-3-81-4 w6m	200.0	150.0	3&4							35.0	
Hines, LSD 6-35-85-3 w6m	5.0	4.5	4&5							<0.1	
Andex Oil Cl—Swalwell, LSD 14-35-29-24 w4m	26.0	26.0	3							6.6	
Twining, LSD 12-10-31-23 w4m	18.0	17.0	3							4.4	
Aquitaine Co. of Canada Ltd.—Rainbow, 10-10-109-8 w6m	75.0	54.0	1&3						285.7		
Ram River, 4-2-37-10 w5m	422.0	351.0	1&5							32.3	
Wimborne, 16-5-35-26 w4m	4.0	1.9	3							0.2	
Bumper Development Corp. Ltd.—Bumper Cecsal Carbon, 6-3-29-23 w4m	10.0	10.0	3							2.5	
Canadian Homestead Oils Ltd.—Gilby, 10-10-041-03-w5	12.0	6.5	1						3.0		
Leafland, 13-16-040-05-w4	5.5	2.7	7					3.7			
Canadian Hunter Exploration Ltd.—Basset Lake South, 10-29-106-5 w6m	NR	0.2	2								
*Elmworth, 1-8-70-11 w6m	50.0	30.0	5								
Haig River, 1-33-104-5 w6m	NR	4.0	2								[11]5.2
Canadian Natural Gas Liquids—Acheson, sw¼ 2-53-26-4	10.0	0.6	2		15.0		9.0			4.0	
Canadian Occidental Petroleum Ltd.—Eaglesham, 5-13-77-26 w5	8.0	6.0	3								[11]1.7
Petrogas Processing, Crossfield, s¼-2-26-29 w4	315.0	194.0	2		55.6		40.7				[11]75.3
Canadian Superior Oil Ltd.—*Harmattan, 27-31-4 w5m	504.0	350.8	2		123.1		93.5			244.8	
Lone Pine Creek, 27-29-28 w4m	35.0	16.7	3								
Candel Oil Ltd.—Big Bend, 13-26-66-27 w4	35.0	16.8	3							8.9	
Castor, 4-3-38-13 w4	1.5	0.8	4&6								
Medicine Hat, 4-1-16-3 w4	21.0	9.1	4								[11]0.1
Minnehik-Buck Lake, 10-5-46-6 w5	108.0	72.8	4&5								
CDC Oil & Gas Ltd.—Entice, 1-24-28-24 w4m	10.0	8.0	4&5								[11]35.3
Flat Lake, 12-66-20 w4m	25.0	18.0	4								

GAS PROCESSING

Company, plant, location	MMcfd			Production — 1,000 gal/day (Average based on the past 12 months							
	Gas capacity	Gas throughput	Process method	Ethane	Prop.	Isobut.	Normal or unsplit butane	LP-gas mix	Raw NGL mix	Debut. nat. gaso.	Other
Hussar, 13-36-24 w4m	75.0	20.0	2&4		15.0	10.3				6.4	
Nordegg River, 6-10-44-12 w5m	55.0	42.0	5						17.6		
Wayne Rosedale, 12-4-28-20 w4m	25.0	12.0	4&5						2.8		
Ceja Corp.—Delburne, LSD 10-8-37-23 w4m	13.0	4.1	1&4							1.3	
Penhold, LSD 10-30-36-27 w4m	6.5	2.9	3						3.1		
Chevron Standard Ltd.—Bigoray, 10-7-51-9 w5	3.0	1.6	3						5.9		
Ferrybank, 14-11-45-27 w4	5.0	2.7	3						1.4		
Joffre, 14-36-38-27 w4	9.9	4.5	3						4.9		
*Kaybob South No. 3, 15-59-18 w5	445.0	312.9	2						424.6	542.5	
Mitsui, 30-72-4 w5	29.0	25.9	3		65.4		43.3			29.6	
Nevis, 15-22-39-22 w4	100.0	52.7	3		17.3		14.9			27.8	
North Gilby, 1-24-41-3 w5	23.0	16.3	3&6						11.0		
Princess, 12-12-20-12 w4	13.0	5.7	5							0.8	
Sylvan Lake, 1-21-38-2 w5	31.5	14.0	2		13.7		9.2			9.3	
Chieftain Mac Gas—Consort, LSD 7-34-34-6 w4m	12.0	3.6	4&5								[11]0.2
Cities Cervice Co.—Keystone, LSD 5 35n-4ws	15.0	9.0	2		2.7		3.5			3.0	
Paddle River, LSD 13, 6-57n 8ws	82.0	46.0	7						30.0		
Corvair Oil && Gas—Corvair, 1-35-51-13 w4m	3.0	1.5	2								[11]1.0
Dome Petroleum Ltd.—Arisk, 1-23-41-8 w4m	10.0	3.0	5								[11]<1.0
Brownfield, se¼-2-39-12 w4m	22.0	19.0	5							1.4	
Choice, 13-17-40-9 w4m	12.0	5.5	5							1.0	
Consort, 8-19-36-2 w4m	70.0	46.0	5								
*East Castor, 5-3-38-13 w4m	15.0	12.0	5							<0.1	
Edmonton, sw¼-4-52-25 w4m	315.0	191.7	7	459.1					317.6		
Empress, 11-20-1 w4m	1,500.0	1,437.0	7	572.4					500.9		
Garrington, 11-17-34-3 w5m	16.0	16.0	7					1.1		0.4	
Goodfare, 19-72-11 w6m	50.0	30.0	3							9.3	
Provost, ne¼-19-36-5 w4m	80.0	50.0	5							3.3	
Tony Creek, 1-4-62-21 w5m	12.0	6.0	3							1.9	
Verger, 6-25-23-16 w4m	3.0	2.0	3							<0.1	
Vulcan No. 1, se¼-24-15-22 w4m	25.0	18.0	3							2.6	
Vulcan No. 2, 1-24-15-22 w4m	30.0	30.0	2							8.2	
West Paddle River, 11-10-56-11 w5m	17.8	13.5	3&4					11.4	12.6		
Wildunn, 18-29-12 w4m	8.8	8.8	3							<0.1	
Esso Resources Canada Ltd.—*Boundary Lake South, Floral, 1-14-85-13 w6	10.5	9.5	5					2.3			
Davon—1 and 2, 34-50-26 w4			†		(332.9)		(227.0)			(146.3)	
*Golden Spike, 16-22-51-27 w4	95.0	95.0	4					120.1			
Joffre D2, Lacombe, ne¼-17-39-26 w4	7.5	3.4	3&4		3.3	1.1	2.7			1.3	
Judy Creek, 10-25-64-11 w5	265.0	200.0	1-2-3 4-5-7						1.5		
*Leduc, 34-50-26 w4	35.0	35.0	3		35.3		32.8			20.1	
Niton, LSD 14-18-54-12 w5	50.0	52.0	3						37.0		
Quirk Creek, s¼ 4-21-4 w5	90.0	50.0	2					180.2			
Redwater, LSD 8 29-57-21 w4m	23.5	18.1	2		51.6		45.5			1.8	
Francana Oil & Gas Ltd..—											
Cessford, 17-26-14 w4	7.0	2.7	2								[11]0.3
Huxley, 17-34-24 4w	13.0	7.0	2								[11]0.3
Strome-Holmberg, 14-44-17 w4m	13.5	12.0	2								[11]0.2
General American Oils Ltd.—Gilby, LSD 6-36-40-3 w5m	2.7	2.4	4							1.5	
Sylvan Lake, LSD 13-25-37-3 w5m	30.0	22.0	3						30.6		
Gulf Canada Resources Inc.—											
Baptiste, LSD 5-28-67-22 w4m	10.4	6.3									
Bashaw, LSD 10-6-42-22 w4m	3.0	1.1						0.1			
Buffalo Lake North, LSD 11-24-41-21 w4m	7.1	2.0	3							0.2	
Hanna, LSD 2-36-31-24 w4m	3.0	1.8	3								
Morrin-Ghost Pine, LSD 1 and 8-11-31-21 w4m	109.5	54.6	3							7.1	
Nevis, ne¼-33-38-22 w4m	114.8	87.2	2		92.5		63.4			60.8	
Pincher Creek, ne¼-33-38-22 w4m	89.5	35.5	1		15.0		15.6			43.6	
Rimbey, LSD 5-44-1 w5m	421.0	293.3	2		286.6	184.9				286.6	
Starrs Gilby, LSD 6-13-40-3 w5m	24.9	20.1	5							5.8	
Strachan, LSD 35-37-9 w5m	273.7	141.3	7					81.9		159.8	
Swalwell, LSD 6-33-29-24 w5m	4.1	3.2	5							0.7	
Home Oil CL—Bashaw, 8-10-42-22 w4m	11.9	5.0	5							0.8	
*Carstairs-Crossfield, 3-3-30-2 w5m	280.0	157.7	2		95.1		77.4			131.0	
Cossack, 7-17-60-17 w4m	6.0	1.2	4								
Marten Hills South—1, 14-22-74-24 w4m	21.0	11.1	4								
Marten Hills South—2, 14-29-74-25 w4m	8.0	4.2	4								[11]0.7
Retlaw, 12-2-13-19 w4m	6.7	5.3	5								[12]1.5
South Elkton, 2-3-31-4 45m	4.4	0.9	3							0.9	
Tieland, 5-14-67-2 w5m	10.0	5.5	4								
Hudson's Bay Oil & Gas CL—											
Brazeau River, 12-46-14 w5m	219.0	140.1	3							54.1	
Caroline, 20-34-4 w5m	55.0	29.1	5		13.3		16.6			24.4	
Cessford, 8-24-12 w4m	125.0	38.1	3							3.6	
Edson, 11-53-18 w5m	374.0	191.8	2							59.6	
Gilby North, 12-41-4 w5m	4.6	2.6	3							1.2	
Gilby South, 26-40-3 w5m	9.0	3.4	5							1.6	
*Kaybob South No. 1, 12-62-20 w5m	227.0	164.2	2		76.8		74.7			241.1	
*Kaybob South No. 2, 12-62-20 w5m	170.0	128.7	2					190.3		244.7	
Lone Pine Creek, 23-30-28 w4m	74.4	32.8	2							35.6	

	MMcfd			Production — 1,000 gal/day (Average based on the past 12 months							
Company, plant, location	Gas capacity	Gas through-put	Process method	Ethane	Prop.	Isobut.	Normal or unsplit butane	LP-gas mix	Raw NGL mix	Debut. nat. gaso.	Other
North Twining, 31-32-24 w4m	8.3	3.8	3					3.4		0.9	
Sturgeon Lake South, 2-69-22 w5m	20.0	14.9	3					5.0		0.8	
Sundance, 25-54-21 w5m	15.6	11.1	3							8.4	
Sylvan Lake, 32-37-3 w5m	65.2	26.6	2		19.7		12.3			11.1	
Tangent, 20-80-24 w5m	7.5	2.6	3								
West Fox Creek, 22-60-19 w5m	15.8	8.6	3					2.8			
Zama, 11-116-6 w6m	25.3	11.7	3					3.9		6.0	
Kerr-McGee Corp.—Elnora, 5-19-35-22 w4	18.1	9.5	2								[11]5.5
Ferrybank, 3-31-44-27 w4	8.5	5.9	2								[11]0.9
Rich, 15-22-35-21	3.1	1.8	2								[11]0.9
Lariat Oil & Gas Ltd.—Three Hills, LSD 11-16-31-23w4m	5.0	4.0	2						1.8		
Mobil Oil Canada Ltd.—*Carson Creek, 23-61-12 w5m	87.0	70.0	2		64.0		54.0			58.0	
Duhamel, 32-45-14 w5m	3.7	2.0	3						10.0		
Three Hills, 33-32-23 w4m	30.0	15.0	3					8.7		5.1	
Wimborne, 12-34-26 w4m	33.0	20.0	3								[11]9.0
Murphy Oil CL—Cessford Gage No. 3, 11-27-25-13 w4	3.0	2.0	1								
North Cessford, 6-29-26-13w-4	1.5	0.5	1&4								
Princess No. 1, 14-23-19 10w4	7.5	7.0	1								
Princess No. 2, 8-16-20 10w4	7.5	6.5	1								
Norcen Energy Resources Ltd.—Bruce, Beaver, 03-06-47-15 w4m	30.0	9.7	4					0.1			
Gilby, Lacombe, 10-08-41-01 w5m	3.5	0.1	2					0.4			
Kessler, 13-05-39-08 w4m	6.5	2.7	4					0.3			
McLeod River, Dist. 14, 07-34-54-14 w5m	5.2	4.9	2					3.1			
St. Albert, Sturgeon Dist., se26-54-25 w4m	20.0	14.0	2		5.5		3.4			3.5	
PanCanadian Petroleum Ltd.—Alderson West, 10-28-15-15 w4m	10.0	6.6	3								[11]0.7
Bassano Lathom, 10-5-22-18 w4m	25.0	11.3	5								[11]10.0
Cantex Nortun, 6-21-40-2 w5m	2.1	1.0	3								[11]0.4
Countess Makepeace, 12-33-22-18 w4m	20.0	12.0	3								[11]0.7
Countess Refrigeration, 10-16-18-15 w4m	5.5	3.5	3								[11]10.0
Entice, 10-7-28-23 w4m	7.0	3.0	3								[11]0.1
Ferrybank, 2-1-44-28 w4m	20.3	11.0	3								[11]4.1
Parflesh, 12-1-25-22 w4m	5.0	0.1	5								[11]5.1
Phoenix, 7-21-39-10 w5m	2.5	1.7	5								[11]0.1
Ranier, 16-35-16-16 w4m	2.0	0.4	2								
Redland, 1-20-28-21 w4m	20.0	16.7	3		2.5		2.7				[11]2.9
Wayne Dalum, 5-17-27-19 w4m	19.0	6.7	5								[11]0.9
Wilson Creek, 7-11-43-4 w5m	4.0	0.2	5								[11]0.2
Wintering Hills, 1-18-25-17 w4m	20.0	11.0	5								[11]11.0
Petro-Canada—Ante Creek, 4-13-65-24 w5m	2.0	1.8	3								[11]0.3
Brazeau, 4-31-48-12 w5m	10.0	10.0	3&4						25.6		
Connorsville, 9-32-25-15 w4m	30.0	19.4	3								[11]3.2
Empress, ne¼-11-20-1 w4m	2,000.0	1,800.0	2&7	1,008.0	504.0	189.0				105.0	
Ferrier, 9-22-39-8 w5m	9.0	2.2	3								[11]1.0
Gilby, 2-27-40-3 w5m	25.0	4.1	3								[11]0.8
Gilby Medicine River, 5-5-40-3 w5m	28.0	11.8	3&5								[11]2.3
Gold Creek, 13-26-67-5 w6m	48.0	15.0	3&4							42.0	
Kaybob A&B, Whitecourt, 8-9-64-19 w5m	90.0	65.0	3								[11]1.6
*Kaybob 'C", Whitecourt, 8-9-64-19 w5m	25.0	20.0	3					23.0		46.0	
Sedgewick, 2-16-42-12 w4m	6.0	3.0	4								
White Court, Lac, St. Anne, 12-26-59-11 w5m	68.0	40.0	5								[11]0.8
Petrofina Canada Inc.—Greencourt, se¼-26-59-9 w5m	32.0	21.7	5							5.3	
Wildcat Hills, sw¼-16-26 5w5	110.0	75.5	5							22.2	
Placer Cego Petroleum Ltd.—Provost, 4-16-33-7 w4	5.6	5.0	3								
Sedalia, 29-31-5 w4	7.0	6.5	5								
Steveville, 31-22-11 w4	22.0	5.0	5								
Wood River, 16-43-24 w4	5.0	2.0	5								
Quasar Petroleum Ltd.—North Grizzly, a-74-g 93-I-15	50.0	20.0	1								
*Quasar Simonette, LSD 9-6-63-25 w5m	8.0	3.0	5								
Sylvan Lake Viking A, LSD 10-3-38-2 w5m	2.0	1.2	2								[11]0.4
Sabine Canada Ltd.—Cessford, 7-5-26-12 w4	1.5	0.3	4								[11]0.6
Edson, 10-30-52-17 w5	3.0	1.5	3						0.8		
Edson, 16-15-53-18 w5	8.0	4.0	3						0.3		
Saratoga Processing CL—Coleman, 11-8-5 w5m	52.0	35.0	1								
Shell Canada Resources Ltd.—Burnt Timber 1 and 2, 13-30-7 w5m	114.0	96.0	1&2							15.4	
Cecil, 10-84-8-w6m	5.0	4.0	1&6							2.4	
Hope Creek, 17-64-13 w5m	10.0	9.0	1&3							3.1	
House Mountain, 8-70-10 w5m	9.0	4.0	3						91.0		
Innisfail, 3-35-1 w5m	13.0	10.0	1&3							21.0	
Jumping Pound, nw¼ 13-25-5-w5m, se¼ 23-25-5-w5m, sw¼ 24-25-5 w5m	200.0	153.0	1-2-3		23.0		27.6			90.0	
Pouce Coupe, 8-80-12 w6m	4.0	3.0	1&6							1.0	
Simonette, 6-63-25 w5m	27.0	22.0	1&3					25.0			
South Rosevear, ne 11-54-15 w5m	50.0	42.0	2							9.4	

Company, plant, location	MMcfd Gas capacity	MMcfd Gas throughput	Process method	Production — 1,000 gal/day (Average based on the past 12 months Ethane	Prop.	Isobut.	Normal or unsplit butane	LP-gas mix	Raw NGL mix	Debut. nat. gaso.	Other
*Waterton 1 and 2, s½ 20-4-30 w4m, n½ 17-4-30 w4m, se¼ 24-4-1-w5m	311.0	215.0	1-2-3	206.0	109.0		88.0			345.0	
Worsley, 22-87-7 w6m	21.0	6.0	2							11.8	
Star Oil & Gas Ltd.—Sunnybrook ne¼-22-48-2 w5m	5.5	2.9	3&4								[11]0.3
Sylvan Lake, ne4-19-38-1-w5	7.0	3.8	3&4								[11]2.7
Steen Resources Ltd.—Crossfield, 8-20-30-3 w5	4.0	1.7	4								[11]1.0
Suncor Inc.—Atmore, se32-67-17 w4m	15.0	11.0	4&5								
Calling Lake, nw33-71-17 w4m	18.0	4.0	4&5								
Countess, Newell Co., 8-36-20-16 w4m	21.0	9.8	1&4								<[11]0.1
Enchant, Taber Co., 11-35-20-15 w4m	20.0	9.1	1&4								<[11]0.1
Killam, Flagstaff 29, 12-23-43-11 w4m	20.0	7.0	1&4								[11]0.1
North Rosevear, ne33-54-15 w5m	35.0	26.5	1&5							7.7	
Portage, nw 10-78-17 w4m	17.0	13.5	4&5								
Sibbald, Special Area 3, 5-6-28-2 w4m	7.5	5.0	1&4								<[11]0.1
Suncor Nixon, nw¼-16-72-16 w4m	6.5	1.8	1&4								
Tweedie, nw 28-68-13 w4m	25.0	14.0	4&5								
Texaco-Canada Inc.‡—Battle Lake, 3-23-46-2 w5m	5.5	NR	3						5.8		
Bonnie Glen Cycle, 17-47-27 w4m	140.0	NR	7		176.6	31.7	69.5			180.6	
Bonnie Glen, 17-47-27 w4m	50.0	NR	2		95.4		74.4			35.5	
Cynthia, 22-49-10 wsm	8.0	NR	3					13.8		5.3	
Gilby, 15-22-40-3 w5m	58.0	NR	2		32.1		25.2			36.2	
Willesden Green, 17-42-6w5m	12.2	NR	2					14.0		5.0	
Texasgulf Inc.—Okotoks, MD 31, Foothills, sw¼-27-20-29 w4m	30.0	17.2	1								[11]2.3
Texas Pacific Oil Canada Ltd.—Ferrier Cardium 2, 10-20-39-7 w5 LSD - 20-39-7 w of 5th merid.	22.0	12.7	3&4						20.0		
TG Hydrocarbons—Cessford, LSD 4-6-24-10 w4m	15.0	4.1	4&5								[11]0.1
North Oyen, LSD 11-17-29-4 w4m	3.5	1.3	4&5								<[11]0.1
Veteran, LSD 15-20-34-8 w4m	10.0	4.3	4&5								[11]0.1
Total Petroleum North America Ltd.—FPC Gilby, 10-12-41-3 w5m	10.0	5.6	5								[11]1.5
Ulster Petroleums Ltd.—Irvine, 1-23-12-2 w4m	8.0	5.0	4								
Western Deca!ta Petroleum Ltd.—Breton, 9-36-47-4w4	3.3	1.2	3&4							4.2	
Leduc, 5-20-49-25w4m	5.0	1.2	3						0.2		
Rockyford, 10-24-26-23 w4m	6.0	2.1	3						1.0		
Turner Valley	40.0	25.0	1&2		30.2		18.5			19.0	
Total	**15,094.2**	**11,083.8**		**3,164.5**	**2,307.1**	**457.6**	**1,000.1**	**780.9**	**2,204.9**	**3,573.8**	**479.3**

†Fractionation. (Figures in parenthesis do not represent primary production, and are not added in state totals). ‡All figures are capacity.

BRITISH COLUMBIA

Company, plant, location	Gas capacity	Gas throughput	Process method	Ethane	Prop.	Isobut.	Normal or unsplit butane	LP-gas mix	Raw NGL mix	Debut. nat. gaso.	Other
Esso Resources Canada Ltd.—Boundary Lake, 1-2-85-14 w6	17.5	10.2	2		22.6	10.7				5.7	
Gas Trunkline of British Columbia—Boundary Lake, Lot A-10-85 14 WOM, Peace River	8.9	3.4	1								
Petro-Canada, Taylor, 3-25&36-82-18 w6m Plan 7891 Peace River	550.0	455.0	1		35.6	58.1	59.0				
Westcoast Transmission CL—Fort Nelson, Lot 2683, Peace River	840.0	685.0	1								
Pine River, Lot 1156, Peace River	260.0	208.0	1								
Total	**1,676.4**	**1,361.6**			**58.2**	**68.8**	**59.0**			**5.7**	

NORTHWEST TERRITORIES

Company, plant, location	Gas capacity	Gas throughput	Process method	Ethane	Prop.	Isobut.	Normal or unsplit butane	LP-gas mix	Raw NGL mix	Debut. nat. gaso.	Other
Amoco Canada Petroleum Cl—Pointed Mountain, 95-85-n24	189.0	59.0	1								

SASKATCHEWAN

Company, plant, location	Gas capacity	Gas throughput	Process method	Ethane	Prop.	Isobut.	Normal or unsplit butane	LP-gas mix	Raw NGL mix	Debut. nat. gaso.	Other
Canadian Homestead Oils Ltd.—Hatton, 14-02-012-28 w3	8.0	5.5	4								
Totnes, 15-33-027-18 w3	2.5	1.5	4								
Dome Petroleum Ltd.—Steelman, w½-21-4-5	38.0	15.0	2		45.6	5.0	16.9				
Esso Resources Canada Ltd.—Smiley, 8-9-31-25 w3	3.0	0.5	3						0.5		
Mobil Oil Canada Ltd.—West Gull Lake, 9-14-19 w4m	15.0	1.0	4							1.0	
Saskatchewan Power Corp.—Coleville, 20-31-23 w3m	60.0	25.5	2		0.1						[11]12.3
Hoosier, 16-30-28 w3m	3.0	0.7	5								<[11]0.1
*Success, 17-17-16 w3m	25.0	6.2	5								[11]0.1
Star Oil & Gas Ltd.—Hatton 3, sw¼-22-48-27 w3m	8.0	4.5	4								
Total	**162.5**	**60.4**			**45.7**	**5.0**	**16.9**		**0.5**	**1.0**	**12.4**

	MMcfd			Production — 1,000 gal/day (Average based on the past 12 months							
Company, plant, location	Gas capacity	Gas through-put	Process method	Ethane	Prop.	Isobut.	Normal or unsplit butane	LP-gas mix	Raw NGL mix	Debut. nat. gaso.	Other
CHILE											
Empresa Nacional del Petroleo—*Cullen, Magallanes, XII Region	160.0	126.0	2		54.1		34.3			24.0	
*Posesion-Cabo Negro, Magallanes, XII Region	350.0	292.0	7		140.2		92.3			84.2	
Total	**510.0**	**418.0**			**194.3**		**126.6**			**108.2**	
CHINA REPUBLIC (Taiwan)											
Chinese Petroleum Corp.—Chingtsaohu plant and field, Miaoli County	52.9	36.5	7	34.8				50.1			
Chinshui plant and field, Miaoli County	35.3	30.3	2					9.5		2.8	
Tung-Hsiao plant, Miaoli County	99.9	85.5	7	57.2		0.7		60.0		21.9	
Total	**188.1**	**152.3**		**92.0**		**0.7**		**119.6**		**24.7**	
DOMINICAN REPUBLIC											
Falconbridge Dominicana C x A—*Bonao field, Arzo, Novel Province, LaVega, La Peguera	2.6	1.4	4								[6]0.2 [9]0.3
Total	**2.6**	**1.4**									**0.5**
ECUADOR											
Ministerio de Recursos Naturales y Energ.—Cepe-Ancon, Santa Elena field, Guayas	NR	NR	1					1.9	8.6		
Cepe-Cautivo plant, Santa Elena field, Guayas	NR	NR	1					0.5	0.5		
Total								**2.4**	**9.1**		
EGYPT											
Amoco International—Abu Gharadig plant and field, Western Desert	146.0	107.0	4&7								[11]112.0
Dashour LPG plant, Abu Gharadig field, Helwan	137.0	100.0	4&7					60.2			
Egyptian General Petroleum Corp.—Abu Qir plant and field	150.0	65.0	6							585.0	
Petrobel—Abu Madi plant and field	120.0	35.5	6							34.0	
Total	**553.0**	**307.5**						**60.2**		**619.0**	**112.0**
GERMANY											
Norddeutsche Erdgas Aufbereitungs GmbH—1—Scholen, Lower Saxony (near Sulingen)	38.0	21.0	1	(sulfur recovery only)							
2—Scholen, Lower Saxony (near Sulingen)	75.0	75.0	1	(sulfur recovery only)							
3—Scholen, Lower Saxony (near Sulingen)	205.0	175.0	1	(sulfur recovery only)							
Wintershall AG—Dueste 1 & II, Staffhorst, Diepholz, Lower Saxony	NR	135.0	Sepasolv	(sulfur only)							
Ruetenbrock, Emsland, Weser-Ems	NR	45.0	Selexol	(sulfur only)							
Total	**542.9**	**451.0**									
HUNGARY											
OKGT:											
Babosca plant and field, Somogy	4.2	2.9	6								[11]1.0
Ebes plant and field, Hajdu-Bihar	8.5	3.9	6								[11]0.8
*Eger plant, Demjén field, Heves	5.1	0.2	5								[11]0.7
Hajduszoboszló plant and field, Hajdu-Bihar	77.7	66.2	2&4		32.6		27.6			30.0	[9]6.0
Kardoskut plant, Pusztafoldváa field, Békés	42.4	8.5	3								[11]3.7
Kisujszállás plant and field, Szolnok	8.5	3.4	6								[11]1.7
Ortaháza plant and field, Zala	4.2	3.3	6								[11]1.5
Szank plant and field, Bács-Kiskun	77.7	29.8	3						31.9		
Szeged plant, Algyo field, Csongrád	501.5	375.3	2-3&6		134.6	9.7	123.5			212.7	[1]38.3 [9]185.4
Tázlár plant and field, Bács-Kiskun	28.3	14.1	6								[11]6.6
Total	**758.1**	**507.6**			**167.2**	**9.7**	**151.1**		**31.9**	**242.7**	**245.7**
INDONESIA											
Atlantic Richfield Indonesia Inc.—Ardjuna, nw Java Sea, 90 miles ne of Jakarta	230.0	100.0	7		315.0		189.0				
Union Oil Co. of California—Santan LEX, Attaka, East Kalimantan	130.0	105.0	7		147.0		105.0				
Total	**360.0**	**205.0**			**462.0**		**294.0**				
ITALY											
AGIP SpA—Brugheiro, Milan, Lombardia, Po Valley	388.0	318.0	1								
Casalborsetti, Porto Garibaldi field, Bologna, Emilia-Romagna, Po Valley	953.0	505.0	1							217.0	

Company, plant, location	MMcfd			Production — 1,000 gal/day (Average based on the past 12 months)							
	Gas capacity	Gas through-put	Process method	Ethane	Prop.	Isobut.	Normal or unsplit butane	LP-gas mix	Raw NGL mix	Debut. nat. gaso.	Other
Casirate D'Adda, Malossa field, Bergamo, Lombardia, Po Valley	211.0	130.0	2					120.0		780.0	
Crotone, Luna field, Catanzaro, Calabria	268.0	168.0	1							0.1	
Gagliano, Enna, Sicily	141.0	22.0	5							14.2	
Ravenna Mare, Porto Corsini Est and Angela fields, Bologna, Emilia-Romagna, Po Valley	265.0	73.0	1							0.1	
Rubicone, Cervia and Cesenatico fields, Bologna, Emilia-Romagna, Po Valley	176.0	98.0	1							0.2	
Sergnano, Lombardia, Milan, Po Valley	1,765.0	1,412.0	1								
Total	**4,167.0**	**2,726.0**						**120.0**		**1,011.6**	

KUWAIT

Company, plant, location	Gas capacity	Gas through-put	Process method	Ethane	Prop.	Isobut.	Normal or unsplit butane	LP-gas mix	Raw NGL mix	Debut. nat. gaso.	Other
Kuwait Oil Co.—Mina Al-Ahmadi	†	†	‡		(409.7)		(425.8)		(348.7)		
Al Shuaiba	1,680.0	848.0	2		2,107.8		1,251.7		799.3		
Total	**1,680.0**	**848.0**			**2,107.8**		**1,251.7**		**799.3**		

†100,000 b/d condensate capacity and 35,139 b/d throughput. ‡Fractionation. (Figures in parenthesis do not represent primary production, and are not included in totals).

LIBYA

Company, plant, location	Gas capacity	Gas through-put	Process method	Ethane	Prop.	Isobut.	Normal or unsplit butane	LP-gas mix	Raw NGL mix	Debut. nat. gaso.	Other
Oasis Oil Co. of Libya Inc.—											
*Bahi, Concession 32	15.0	10.0	2&4								[11]160.0
Dahra, Concession 32	140.0	20.0	2&4								[11]11.0
Defa, Concession 59 and 71	104.0	47.0	4								[11]210.0
Waha, Concession 59W	52.0	52.0	4								[11]170.0
Occidental of Libya Inc.—103A, Sirte Basin Petroleum Zone II	670.0	450.0	3						666.0		
103D, Sirte Basin, Petroleum Zone II	420.0	255.0	3						375.0		
Socialist People's Libyan Arab Jamahirya, Marsa Brega	450.0	393.0	NR					37.8	4,536.0		
Total	**1,851.0**	**1,227.0**						**37.8**	**5,577.0**		**551.0**

MEXICO

Company, plant, location	Gas capacity	Gas through-put	Process method	Ethane	Prop.	Isobut.	Normal or unsplit butane	LP-gas mix	Raw NGL mix	Debut. nat. gaso.	Other
Petroleos Mexicanos—Cactus I, Chiapas	500.0	[1]494.4	7		[2]1,255.7						
Cactus A,B,C,D, Chiapas	600.0	(1)	6		(2)						
Ciudad Pemex A, Tabasco	550.0	552.2	2		[3]1,608.7						
Ciudad Pemex C, Tabasco	183.0	199.1	7		(3)						
La Venta A, Tabasco	205.0	210.5	2	[4]501.8	[5]1,127.9						
La Venta C, Tabasco	182.0	217.7	7	(4)	(5)						
Pajaritos, Veracruz	192.0	183.0	7	224.9	88.1						
Poza Rica A, Veracruz	220.0	5.5	2	[6]419.4	[7]496.7						
Poza Rica C, Veracruz	275.0	251.7	6	(6)	(7)						
Reynosa, Tamaulipas	550.0	349.4	2	116.4	402.9						
Total	**3,457.0**	**2,463.5**		**1,262.5**	**4,980.0**						

1. Total throughput for all five Cactus plants. 2. Total propane plus. 3. Total C.P. propane plus. 4. Total La Venta ethane. 5. Total La Venta propane plus. 6. Total Poza Rica ethane. 7. Total Poza Rica propane plus. (Propane column is all propane plus).

NETHERLANDS

Company, plant, location	Gas capacity	Gas through-put	Process method	Ethane	Prop.	Isobut.	Normal or unsplit butane	LP-gas mix	Raw NGL mix	Debut. nat. gaso.	Other
Amoco Netherlands—*Bergen, North Holland	330.0	165.0	5								[11]7.0

NEW ZEALAND

Company, plant, location	Gas capacity	Gas through-put	Process method	Ethane	Prop.	Isobut.	Normal or unsplit butane	LP-gas mix	Raw NGL mix	Debut. nat. gaso.	Other
Natural Gas Corp. of New Zealand Ltd.—Kapuni, Taranaki, Lot 1.Dp 5227, Sec. 11, B-XVI, Kaupokouni SD area 11.2.27	96.0	54.0	3		11.5		0.3			5.3	

PAKISTAN

Company, plant, location	Gas capacity	Gas through-put	Process method	Ethane	Prop.	Isobut.	Normal or unsplit butane	LP-gas mix	Raw NGL mix	Debut. nat. gaso.	Other
Oil and Gas Development Corp.—Sari-Hundi plant and field, Dadu district, Sind Province	25.0	9.4	1								<[11]0.1
Sui Gas Transmission CL—Jacobabad district via Kashmore, Baluchistan	670.0	630.0	1&5								[11]3.1
Total	**695.0**	**639.4**									**3.1**

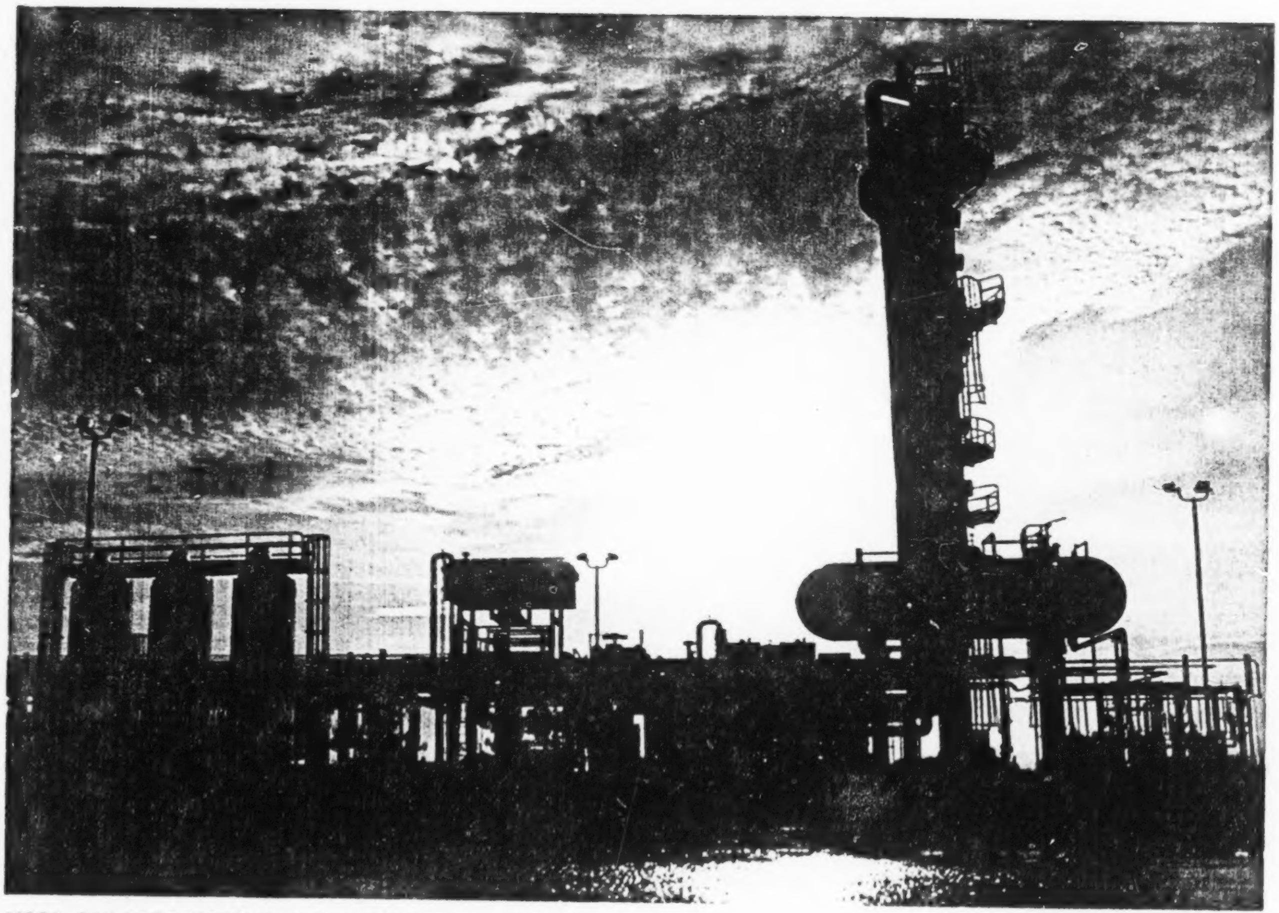
PERU

Company, plant, location	Gas capacity	Gas through-put	Process method	Ethane	Prop.	Isobut.	Normal or unsplit butane	LP-gas mix	Raw NGL mix	Debut. nat. gaso.	Other
Petroleos del Peru—Lagunitos, La Brea y Parinas, Talara, Piura	14.0	3.5	1								
Pozo and Parinas, La Brea y Parinas, Talara, Piura	70.0	40.1	2		2.0		1.0	3.4		49.7	[6]3.5
Total	**84.0**	**43.6**			**2.0**		**1.0**	**3.4**		**49.7**	**3.5**

SAUDI ARABIA

Company, plant, location	Gas capacity	Gas through-put	Process method	Ethane	Prop.	Isobut.	Normal or unsplit butane	LP-gas mix	Raw NGL mix	Debut. nat. gaso.	Other
Arabian American Oil Co.†—Abqaiq	580.0	NR	3&4						11,550.0		
Berri	600.0	NR	1-2-3-4						2,650.0		
Ras Tanura	120.0	NR	3&4						2,100.0		
Ras Tanura	....	....	‡		(6,100.0)		(4,400.0)			(4,600.0)	
Total	**1,300.0**	**1,040.0**							**1,304.0**		

†All figures are capacity. ‡Fractionation. (Figure in parenthesis do not represent primary production, and are not added in totals).



***MOBIL** GAS-PROCESSING PLANT IS LOCATED IN VERMILION PARISH, LA.*

Company, plant, location	MMcfd			Production — 1,000 gal/day (Average based on the past 12 months							
	Gas capacity	Gas through-put	Process method	Ethane	Prop.	Isobut.	Normal or unsplit butane	LP-gas mix	Raw NGL mix	Debut. nat. gaso.	Other
UNITED KINGDOM											
Amoco U.K.—Bacton, Leman 49ú26 27-28&53/1-2											
Indefatigable 49/18 19-23&24, Norfolk Co.	2,000.0	1,059.0	3								[11]40.4
Easington, Rough field, Yorkshire Co., 47-3&8	145.0	145.0	1								[11]35.8
Total Oil Marine Ltd.—Saint Fergus,											
Frigg field, Grampian province	65.0	46.0	3							1,572.5	
Total	**2,210.0**	**1,250.0**								**1,572.5**	**76.2**
VENEZUELA											
Corpoven—Bajo Grande fractionation plant			†		(134.2)		(112.5)			(116.2)	
Guario, Anzoategui	90.0	43.0	6						4.9		
*Lama Liquids, Zulia	150.0	86.0	3						356.1		
LPG El Tablazo, Zulia	165.0	155.0	7	8.4	181.2		98.5			61.5	
Lagoven—Bachaquero 1, Zulia	440.0	411.0	4						25.0		
Tia Juana 1, Tia Juana, Zulia	230.0	155.0	1						3.3		
Tia Juana 2, Lagunillas, Zulia	450.0	403.0	3						689.2		
Tia Juana 3, Tia Juana, Zulia	455.0	432.0	3						689.2		
Ule fractionation plant, Punta Gorda, Zulia			†		(611.9)		(547.1)			(460.2)	
Maraven—*Lamar Liquido, Lake Maracaibo, Zulia	162.0	34.0	3						15.6		
La Paz, Zulia	150.0	89.0	1		45.1	17.1	41.2			40.4	
Mara, Zulia	55.0	34.0	1		10.0		19.0			13.8	
Meneven—Guara, Anzoategui	42.0	15.0	1						0.8	9.0	
El Roble, Anzoategui	15.0	11.0	4							1.0	
Oficina, Anzoategui	9.0	0.2	1						0.1	0.8	
*San Roque, Anzoategui	45.0	8.0	1							10.2	
*Santa Rosa, Anzoategui	150.0	120.0	2					394.0		15.2	
VPM—Santa Barbara, Monagas	36.0	18.0	1					8.5		5.5	[7]1.7 [10]1.3
Total	**2,644.0**	**2,014.2**		**8.4**	**236.3**	**17.1**	**158.7**	**402.5**	**1,943.5**	**157.4**	**3.0**

†Parenthetical figures do not represent primary production, and are not added to totals.
Bajo Grande plant fractionates raw NGL mix from Corpoven's Lama plant and Maraven's Lamar Liquids plant.
·Ule plant fractionates all raw NGL mix from Lagoven plants.

Worldwide refining capacity

EUROPE

Upper figures = 1,000 b/d
Lower figures = million t/y

	1940	1950	1960	1970	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981
Austria	... ...	26 1.3	47 2.3	98 4.9	155 7.7	221 11.0	220 11.0	220 11.0	280 13.9	280 13.9	280 13.9	280 13.9	280 13.9	280 13.9
Belgium	12 0.6	16 0.8	171 8.5	699 34.8	836 41.6	832 41.4	817 40.7	867 43.2	946 47.1	1,095 54.5	1,067 53.1	972 48.4	1,064 53.0	1,056 52.6
Cyprus	... ...	...	... ...	... ...	... ...	12 0.6	15 0.7	15 0.7	15 0.7	15 0.7	15 0.7	15 0.7	16 0.8	16 0.8
Denmark	1 ...	1 ...	... ...	173 8.6	228 11.4	222 11.1	227 11.3	220 11.0	226 11.3	226 11.3	220 11.0	215 10.7	214 10.7	215 10.7
Finland	... ...	... ...	25 1.2	176 8.8	168 8.4	186 9.3	186 9.3	196 9.8	336 16.7	336 16.7	336 16.7	336 16.7	336 16.7	336 16.7
France	152 7.6	306 15.2	769 38.3	2,405 119.8	2,692 134.1	2,949 146.9	3,140 156.4	3,342 166.4	3,312 164.9	3,517 175.1	3,456 172.1	3,469 172.6	3,385 168.6	3,342 166.4
Germany, Fed. Rep.	48 2.4	81 4.0	573 28.5	2,351 117.1	2,564 127.7	2,698 134.4	2,825 140.7	2,987 148.8	3,103 154.5	3,075 153.1	3,081 153.4	3,103 154.5	2,986 148.7	3,021 150.4
Greece	... ...	... ...	30 1.5	95 4.7	110 5.5	125 6.2	314 15.6	411 20.5	420 20.9	407 20.3	407 20.3	411 20.5	431 21.5	428 21.3
Ireland	11 0.5	... ...	40 2.0	54 2.7	55 2.7	58 2.9	58 2.9	56 2.8	56 2.8	56 2.8	56 2.8	56 2.8	56 2.8	56 2.8
Italy	41 2.0	107 5.3	773 38.5	3,214 160.1	3,682 183.4	3,593 178.9	3,882 193.3	3,953 196.9	4,082 203.3	4,259 212.1	4,226 210.4	4,196 209.0	4,131 205.7	4,092 203.7
Netherlands	15 0.7	77 3.8	359 17.9	1,456 72.5	1,644 81.9	1,826 90.9	1,826 90.9	1,841 91.7	1,985 98.8	2,031 101.1	1,869 93.1	1,857 92.5	1,828 91.0	1,827 91.0
Norway	1 ...	1 ...	2 0.2	113 5.6	167 8.3	173 8.6	168 8.4	168 8.4	259 12.9	259 12.9	264 13.1	264 13.1	264 13.1	253 12.6
Portugal	4 0.2	8 0.4	23 1.1	82 4.1	84 4.2	80 4.0	110 5.5	110 5.5	190 9.5	190 9.5	415 20.7	361 18.0	378 18.8	341 17.0
Spain	2 0.1	6 0.3	146 7.3	728 36.2	866 43.1	1,026 51.1	1,163 57.9	1,165 58.0	1,323 65.9	1,277 63.6	1,271 63.3	1,425 71.0	1,456 72.5	1,464 72.9
Sweden	4 0.2	26 1.3	48 2.4	253 12.6	259 12.9	244 12.1	248 12.4	248 12.4	413 20.6	434 21.6	424 21.1	411 20.5	458 22.8	451 22.5
Switzerland	... ...	... ...	... ...	106 5.3	108 5.4	120 6.0	140 7.0	138 6.9	138 6.9	137 6.8	137 6.8	137 6.8	137 6.8	102 5.1
United Kingdom	133 6.6	197 9.8	962 47.9	2,420 120.5	2,588 128.9	2,465 122.8	2,762 137.5	2,783 138.6	2,889 143.9	3,014 150.1	2,911 145.0	2,527 125.8	2,527 125.8	2,629 130.9
Yugoslavia	5 0.2	8 0.4	10 0.5	228 11.3	288 14.3	288 14.3	288 14.3	288 14.3	280 13.9	249 12.4	293 14.6	293 14.6	296 14.7	297 14.8
Total Europe	**429** **21.1**	**860** **42.6**	**3,978** **198.1**	**14,651** **729.6**	**16,494** **821.2**	**17,118** **852.5**	**18,390** **915.8**	**19,008** **946.9**	**20,253** **1,008.5**	**20,857** **1,038.5**	**20,728** **1,032.1**	**20,328** **1,012.1**	**20,243** **1,007.9**	**20,206** **1,006.1**

LATIN AMERICA

Upper figures = 1,000 b/d
Lower figures = million t/y

	1940	1950	1960	1970	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981
Argentina	103 5.1	152 7.6	238 11.9	502 25.0	630 31.4	602 30.0	624 31.1	721 35.9	684 34.1	703 35.0	655 32.6	655 32.6	676 33.7	679 33.8
Barbados	... ...	... ...	... ...	3 0.1	3 0.1	3 0.1	3 0.1	3 0.1	3 0.1	3 0.1	3 0.1	3 0.1	3 0.1	3 0.1
Bolivia	1 ...	7 0.3	12 0.6	21 1.0	23 1.1	22 1.1	26 1.3	26 1.3	34 1.7	37 1.8	40 2.0	74 3.7	74 3.7	74 3.7
Brazil	4 0.2	12 0.6	156 7.8	575 28.6	564 28.1	718 35.8	792 39.4	962 47.9	986 49.1	1,118 55.7	1,161 57.8	1,209 60.2	1,205 60.0	1,402 69.8
Chile	1 ...	4 0.2	24 1.2	115 5.7	136 6.8	124 6.2	124 6.2	124 6.2	149 7.4	140 7.0	130 6.5	144 7.2	139 6.9	139 6.9
Colombia	15 0.7	24 1.2	51 2.5	140 7.0	174 8.7	172 8.6	166 8.3	172 8.6	172 8.6	165 8.2	165 8.2	174 8.7	193 9.6	199 9.9
Costa Rica	... ...	... ...	... ...	8 0.4	8 0.4	8 0.4	8 0.4	11 0.5	8 0.4	8 0.4	10 0.5	12 0.6	11 0.5	15 0.7
Cuba	4 0.2	7 0.3	87 4.3	93 4.6	93 4.6	93 4.6	122 6.1	122 6.1	122 6.1	122 6.1	122 6.1	160 8.0	160 8.0	160 8.0
Ecuador	2 0.1	5 0.2	7 0.3	37 1.8	36 1.8	36 1.8	35 1.7	44 2.2	44 2.2	41 2.0	96 4.8	93 4.6	86 4.3	87 4.3
El Salvador	... ...	... ...	... ...	14 0.7	14 0.7	14 0.7	14 0.7	14 0.7	16 0.8	16 0.8	17 0.8	17 0.8	16 0.8	16 0.8
Guatemala	... ...	... ...	...	21 1.0	26 1.3	26 1.3	26 1.3	26 1.3	25 1.2	14 0.7	14 0.7	14 0.7	16 0.8	16 0.8
Honduras	... ...	... ...	... ...	10 0.5	15 0.7	14 0.7	14 0.7	15 0.7	14 0.7	14 0.7	14 0.7	14 0.7	14 0.7	14 0.7
Jamaica		... ...	...	28 1.4	35 1.7	31 1.5	33 1.6	33 1.6	33 1.6	33 1.6	33 1.6	33 1.6	34 1.7	22 1.1
Mexico	98 4.9	160 8.0	357 17.8	515 25.6	592 29.5	625 31.1	625 31.1	760 37.8	760 37.8	935 46.6	1,384 68.9	1,244 61.9	1,394 69.4	1,394 69.4
Netherlands Antilles	495 24.6	617 30.7	680 33.9	795 39.6	834 41.5	880 43.8	945 47.1	900 44.8	849 42.3	810 40.3	842 41.9	842 41.9	792 39.4	782 38.9
Nicaragua	... ...	... ...	... ...	21 1.0	14 0.7	13 0.6	13 0.6	13 0.6	13 0.6	15 0.7	15 0.7	15 0.7	14 0.7	14 0.7
Panama	... ...	... ...	... ...	140 7.0	75 3.7	75 3.7	75 3.7	100 5.0	100 5.0	100 5.0	100 5.0	100 5.0	100 5.0	100 5.0
Paraguay	... ...	... ...	... ...	5 0.2	5 0.2	5 0.2	5 0.2	5 0.2	5 0.2	5 0.2	5 0.2	5 0.2	7 0.3	8 0.4
Peru	22 1.1	35 1.7	49 2.4	104 5.2	106 5.3	102 5.1	107 5.3	130 6.5	130 6.5	116 5.8	171 8.5	171 8.5	170 8.5	169 8.4
Puerto Rico	... ...	... ...	84 4.2	155 7.7	151 7.5	291 14.5	308 15.3	283 14.1	283 14.1	283 14.1	284 14.1	284 14.1	284 14.1	284 14.1
Trinidad & Tobago	49 2.4	104 5.2	182 9.1	417 20.8	464 23.1	441 22.0	461 23.0	461 23.0	461 23.0	461 23.0	461 23.0	461 23.0	456 22.7	456 22.7
Uruguay	5 0.2	16 0.8	28 1.4	40 2.0	43 2.1	40 2.0	43 2.1	43 2.1	46 2.3	46 2.3	43 2.1	43 2.1	40 2.0	40 2.0
Venezuela	55 2.7	254 12.6	886 44.1	1,324 65.9	1,376 68.5	1,499 74.6	1,532 76.3	1,532 76.3	1,451 72.3	1,446 72.0	1,446 72.0	1,446 72.0	1,446 72.0	1,349 67.2
Virgin Islands	... ...	... ...	... ...	220 11.0	440 21.9	418 20.8	590 29.4	590 29.4	728 36.2	728 36.2	728 36.2	728 36.2	728 36.2	728 36.2
Others	... ...	... ...	... ...	31 1.5	30 1.5	294 14.6	577 28.7	572 28.5	574 28.6	546 27.2	558 27.8	560 27.9	562 28.0	562 28.0
Total	**854** **42.2**	**1,397** **69.4**	**2,841** **141.5**	**5,334** **265.3**	**5,887** **292.9**	**6,546** **325.8**	**7,268** **361.7**	**7,661** **381.4**	**7,690** **382.9**	**7,905** **393.5**	**8,497** **422.8**	**8,501** **423.0**	**8,620** **429.1**	**8,712** **433.6**

REFINERY CAPACITY STATISTICS

NORTH AMERICA

Upper figures = 1,000 b/d
Lower figures = million t/y

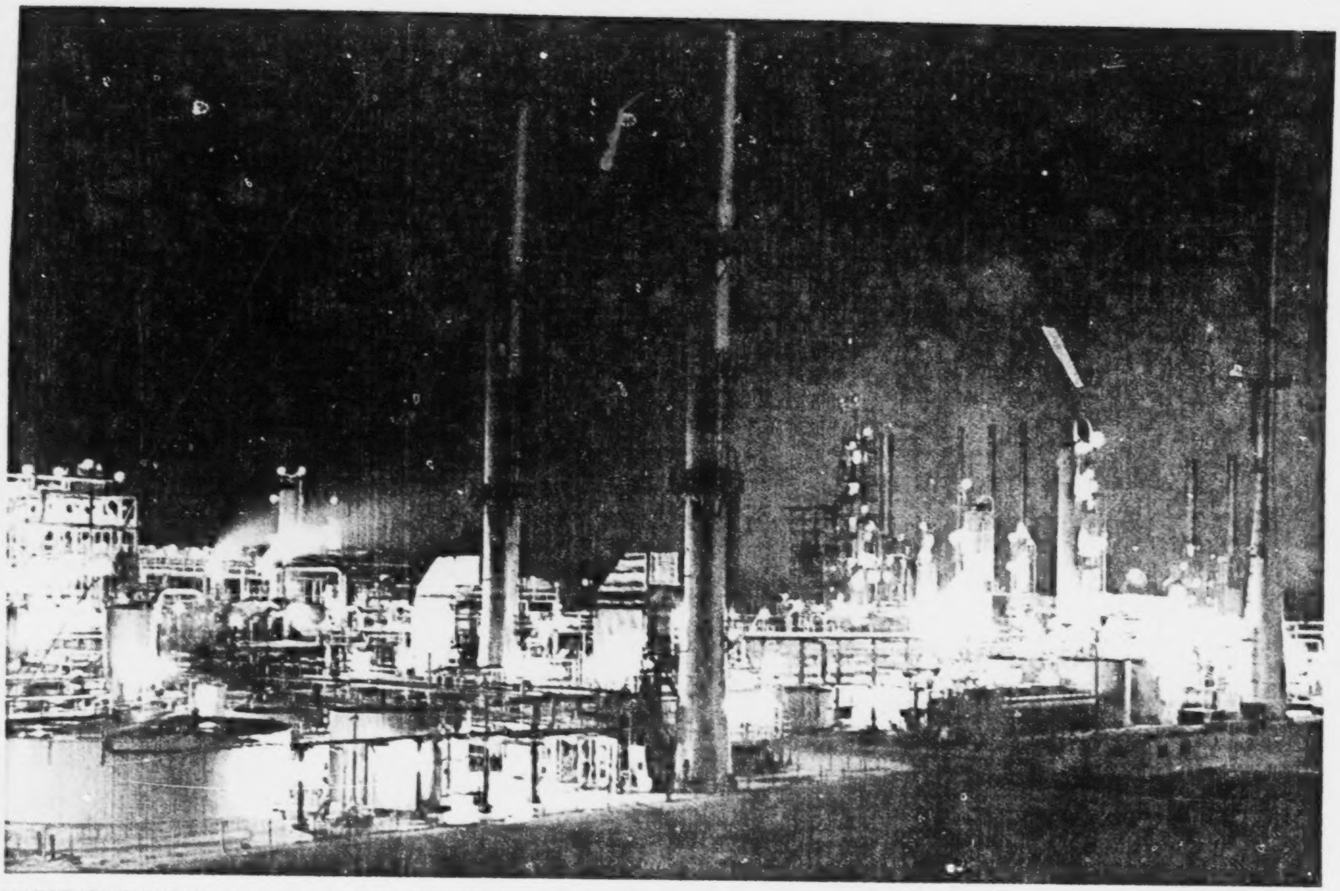
	1940	1950	1960	1970	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981
Canada	203 10.1	329 16.4	1,002 49.9	1,355 67.5	1,832 91.2	1,897 94.5	1,788 89.0	2,024 100.8	2,076 103.4	2,100 104.6	2,126 105.9	2,225 110.8	2,222 110.6	2,168 107.9
United States	4,460 222.1	6,696 333.5	10,400 517.9	12,079 601.5	13,709 682.7	13,992 696.8	13,383 666.5	14,845 739.3	15,043 749.1	15,930 793.3	16,171 805.3	17,150 854.1	17,720 882.5	18,470 919.6
Total	**4,663 232.2**	**7,025 349.9**	**11,402 567.8**	**13,434 669.0**	**15,541 773.9**	**15,889 791.3**	**15,171 755.5**	**16,869 840.1**	**17,119 852.5**	**18,030 897.9**	**18,297 911.2**	**19,375 964.9**	**19,942 993.1**	**20,638 1,027.5**
Total, exclu. U.S.S.R., China, E. Europe	**6,608 328.3**	**10,513 523.0**	**21,148 1,052.9**	**42,078 2,094.6**	**48,560 2,417.7**	**51,134 2,545.6**	**53,738 2,675.6**	**57,465 2,861.8**	**59,449 2,960.1**	**61,680 3,071.3**	**62,672 3,120.4**	**63,702 3,171.8**	**64,375 3,205.2**	**65,548 3,263.4**

AFRICA

Upper figures = 1,000 b/d
Lower figures = million t/y

	1940	1950	1960	1970	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981
Algeria	... ...	... ...	... ...	47 2.3	48 2.4	61 3.0	115 5.7	115 5.7	122 6.1	122 6.1	122 6.1	122 6.1	122 6.1	122 6.1
Angola	... ...	... ...	2 0.1	20 1.0	14 0.7	16 0.8	25 1.2	36 1.8	35 1.7	32 1.6	32 1.6	32 1.6	36 1.8	31 1.5
Egypt	17 0.8	39 1.9	87 4.3	193 9.6	210 10.5	99 4.9	180 9.0	180 9.0	180 9.0	236 11.8	234 11.7	251 12.5	234 11.6	292 14.5
Ghana	... ...	... ...	... ...	29 1.4	28 1.4	27 1.3	25 1.2	28 1.4	28 1.4	26 1.3	26 1.3	26 1.3	26 1.3	26 1.3
Ivory Coast	... ...	... ...	... ...	19 0.9	22 1.1	24 1.2	44 2.2	44 2.2	40 2.0	41 2.0	39 1.9	39 2.0	50 2.5	50 2.5
Kenya	... ...	... ...	... ...	44 2.2	51 2.5	48 2.4	48 2.4	48 2.4	86 4.3	86 4.3	95 4.7	95 4.7	95 4.7	95 4.7
Libya	... ...	... ...	... ...	10 0.5	6 0.3	17 0.8	16 0.8	76 3.8	76 3.8	135 6.7	135 6.7	137 6.8	138 6.9	142 7.1
Morocco	... ...	... ...	2 0.1	35 1.7	37 1.8	59 2.9	59 2.9	59 2.9	68 3.4	68 3.4	72 3.6	72 3.6	72 3.6	72 3.6
Mozambique	... ...	... ...	... ...	20 1.0	17 0.8	17 0.8	17 0.8	17 0.8	11 0.5	11 0.5	11 0.5	16 0.8	16 0.8	16 0.8
Nigeria	... ...	... ...	... ...	40 2.0	55 2.7	60 3.0	60 3.0	60 3.0	57 2.8	60 3.0	60 3.0	159 7.9	160 8.0	160 8.0
Zimbabwe	... ...	... ...	... ...	20 1.0	20 1.0	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...
Senegal	... ...	... ...	... ...	13 0.6	12 0.6	12 0.6	18 0.9	15 0.7	12 0.6	19 0.9	20 1.0	20 1.0	20 1.0	20 1.0
South Africa	1 ...	... ...	25 1.2	178 8.9	251 12.5	243 12.1	331 16.5	397 19.8	434 21.6	433 21.6	446 22.2	478 23.8	478 23.8	469 23.4
Sudan	... ...	... ...	... ...	20 1.0	21 1.0	20 1.0	22 1.1	22 1.1	24 1.2	24 1.2	24 1.2	26 1.3	26 1.3	24 1.2
Tanzania	... ...	... ...	... ...	14 0.7	17 0.8	17 0.8	17 0.8	16 0.8	16 0.8	12 0.6	12 0.6	17 0.8	17 0.8	12 0.6
Tunisia	... ...	... ...	... ...	23 1.1	25 1.2	21 1.0	21 1.0	25 1.2	23 1.1	22 1.1	22 1.1	34 1.7	34 1.7	34 1.7
Others	... ...	... ...	... ...	67 3.3	68 3.4	85 4.2	94 4.7	108 5.4	108 5.4	117 5.8	117 5.8	143 7.1	142 7.1	142 7.1
Total	**18 0.8**	**39 1.9**	**116 5.7**	**792 39.2**	**902 44.7**	**826 40.8**	**1,092 54.2**	**1,246 62.0**	**1,320 65.7**	**1,444 71.9**	**1,467 73.0**	**1,667 83.0**	**1,666 83.0**	**1,707 85.1**

†included in Kuwaiti figures



MARATHON'S GARYVILLE REFINERY IN LOUISIANA NESTLES ALONGSIDE THE MISSISSIPPI RIVER.

MIDDLE EAST

Upper figures = 1,000 b/d
Lower figures = million t/y

	1940	1950	1960	1970	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981
Bahrain	33 1.6	150 7.5	187 9.3	265 13.2	205 10.2	250 12.4	250 12.4	250 12.4	250 12.4	250 12.4	250 12.4	250 12.4	250 12.4	250 12.4
Iran	333 16.6	502 25.0	495 24.6	702 35.0	653 32.5	620 30.9	660 32.9	789 39.3	781 38.9	780 38.8	910 45.3	921 45.9	921 45.9	1,121 55.8
Iraq	4 0.2	9 0.4	56 2.8	83 4.1	102 5.1	99 4.9	99 4.9	169 8.4	169 8.4	168 8.4	168 8.4	168 8.4	168 8.4	168 8.4
Israel	... ...	83 4.1	87 4.3	115 5.7	140 7.0	147 7.3	212 10.6	201 10.0	181 9.0	201 10.0	201 10.0	195 9.7	195 9.7	190 9.5
Kuwait	... ...	25 1.2	220 11.0	489 24.3	644 32.1	647 32.2	646 32.2	646 32.2	685 34.1	684 34.1	712 35.5	712 35.5	645 32.1	645 32.1
Lebanon	... ...	6 0.3	24 1.2	37 1.8	55 2.7	54 2.7	54 2.7	54 2.7	54 2.7	... ...	53 2.6	53 2.6	53 2.6	52 2.6
Neutral Zone	... ...	... ...	50 2.5	80 4.0	80 4.0	80 4.0	(†) ...	(†) ...	(†) ...	(†) ...	(†) ...	(†) ...	(†) ...	(†) ...
Saudi Arabia	... ...	140 7.0	189 9.4	465 23.2	507 25.2	428 21.3	428 21.3	610 30.4	537 26.7	630 31.4	586 29.2	487 24.2	487 24.2	487 24.2
Syria	... ...	... ...	... ...	54 2.7	54 2.7	51 2.5	51 2.5	51 2.5	117 5.8	116 5.8	102 5.1	223 11.1	223 11.1	223 11.1
Turkey	... ...	1 ...	7 0.3	209 10.4	292 14.5	286 14.2	306 15.2	316 15.7	316 15.7	325 16.2	326 16.2	338 16.8	356 17.7	356 17.7
Yemen (P.D.R.)	... ...	... ...	120 6.0	178 8.9	178 8.9	160 8.0	162 8.1	169 8.4	169 8.4	169 8.4	143 7.1	143 7.1	175 8.7	175 8.7
Others	... ...	... ...	1 ...	9 0.4	8 0.4	16 0.8	15 0.7	28 1.4	29 1.4	48 2.4	55 2.7	56 2.8	45 2.2	63 3.1
Total	**370** **18.4**	**916** **45.5**	**1,436** **71.4**	**2.686** **133.7**	**2,918** **145.3**	**2.838** **141.2**	**2,883** **143.5**	**3,283** **163.4**	**3,288** **163.5**	**3,371** **167.9**	**3,506** **174.5**	**3,546** **176.5**	**3,518** **175.0**	**3,731** **185.6**

ASIA-PACIFIC

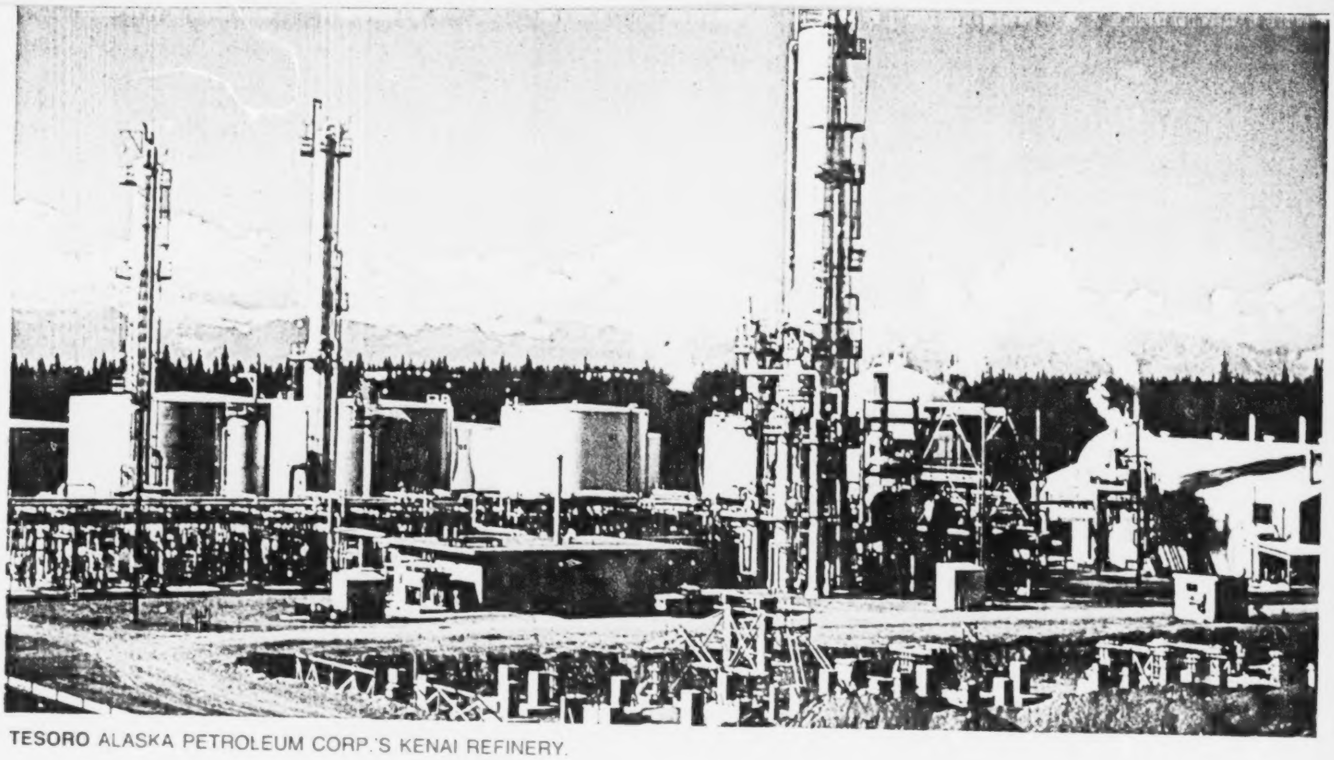
Upper figures = 1,000 b/d
Lower figures = million t/y

	1940	1950	1960	1970	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981
Australia	4 0.2	14 0.7	237 11.8	581 28.9	699 34.8	633 31.5	681 33.9	722 36.0	707 35.2	706 35.2	709 35.3	708 35.3	725 36.1	743 37.0
Bangladesh	... ...	... ...	... ...	... ...	34 1.7	31 1.5	31 1.5	31 1.5	31 1.5	31 1.5	31 1.5	31 1.5	31 1.5	31 1.5
Brunei-Malaysia-Singapore	10 0.5	10 0.5	46 2.3	302 15.0	427 21.3	513 25.5	823 41.0	969 48.3	1,001 49.8	1,085 54.0	1,086 54.1	1,058 52.7	1,093 54.4	1,246 62.0
India	10 0.5	6 0.3	112 5.6	436 21.7	437 21.8	489 24.3	499 24.9	555 27.6	564 28.1	567 28.2	564 28.1	626 31.2	557 27.7	557 27.7
Indonesia	170 8.5	203 10.1	274 13.6	268 13.3	420 20.9	424 21.1	428 21.3	423 21.3	428 21.3	428 21.3	528 26.3	528 26.3	528 26.3	445 22.2
Japan	53 2.6	34 1.7	640 31.9	2,796 139.2	3,791 188.8	4,316 214.9	4,940 246.0	5,134 255.7	5,417 269.8	5,552 276.5	5,467 272.2	5,480 272.9	5,509 274.3	5,454 271.6
Korea, South	... ...	... ...	... ...	175 8.7	220 11.0	430 21.4	420 20.9	425 21.2	435 21.7	424 21.1	475 23.6	542 27.0	601 29.9	607 30.2
Pakistan	... ...	5 0.2	6 0.3	115 5.7	83 4.1	81 4.0	81 4.0	79 3.9	74 3.7	74 3.7	106 5.3	110 5.5	98 4.9	122 6.1
Philippines	... ...	... ...	22 1.1	180 9.0	221 11.0	276 13.7	284 14.1	274 13.6	247 12.3	251 12.5	253 12.6	253 12.6	253 12.6	246 12.2
Taiwan	... ...	... ...	28 1.4	129 6.4	220 11.0	199 9.9	210 10.5	244 12.1	335 16.7	425 21.2	425 21.2	425 21.2	425 21.2	515 25.6
Thailand	... ...	... ...	1 ...	62 3.1	86 4.3	156 7.8	166 8.3	166 8.3	166 8.3	161 8.0	160 8.0	160 8.0	186 9.3	186 9.3
Others	27 1.3	4 0.2	9 0.4	137 6.8	180 9.0	369 18.4	371 18.5	371 18.5	374 18.6	369 18.4	373 18.6	364 18.1	380 18.9	402 20.0
Total	**274** **13.6**	**276** **13.7**	**1,375** **68.4**	**5,181** **257.8**	**6,818** **339.7**	**7,917** **394.0**	**8,934** **444.9**	**9,398** **468.0**	**9,779** **487.0**	**10,073** **501.6**	**10,177** **506.8**	**10,285** **512.3**	**10,386** **517.1**	**10,554** **525.5**

U.S.S.R.-EASTERN EUROPE-CHINA

Upper figures = 1,000 b/d
Lower figures = million t/y

	1940	1950	1960	1970	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981
China	... ...	8 0.4	98 4.9	300 14.9	480 23.9	500 24.9	600 29.9	850 42.3	1,014 50.5	1,398 69.6	1,400 69.7	1,578 78.6	1,600 79.7	1,810 90.1
Czechoslovakia	... ...	16 0.8	46 2.3	220 11.0	280 13.9	306 15.2	346 17.2	354 17.6	374 18.6	404 20.1	413 20.6	445 22.2	455 22.7	455 22.7
Hungary	... ...	20 1.0	58 2.9	130 6.5	170 8.5	210 10.5	210 10.5	212 10.6	223 11.1	230 11.5	226 11.3	230 11.5	290 14.4	312 15.5
Poland	... ...	4 0.2	20 1.0	156 7.8	200 10.0	240 12.0	276 13.7	280 13.9	326 16.2	366 18.2	370 18.4	380 18.9	385 19.2	385 19.2
Romania	... ...	182 9.1	260 12.9	356 17.7	400 19.9	408 20.3	442 22.0	452 22.5	462 23.0	490 24.4	508 25.3	533 26.5	608 30.3	617 30.7
U.S.S.R.	... ...	900 44.8	2,800 139.4	5,640 280.9	6,680 332.7	7,260 361.5	7,810 388.9	8,240 410.3	9,225 459.4	9,500 473.1	9,785 487.3	10,478 521.8	10,950 545.3	11,400 567.6
Others	... ...	4 0.2	40 2.0	332 16.5	345 17.2	350 17.4	350 17.4	375 18.7	726 36.1	800 39.8	810 40.3	823 41.0	852 42.4	852 42.4
Total	... ...	**1,134** **56.5**	**3,322** **165.4**	**7,134** **355.3**	**8,555** **426.1**	**9,274** **461.8**	**10,034** **499.6**	**10,763** **535.9**	**12,350** **614.9**	**13,188** **656.7**	**13,512** **672.9**	**14,467** **720.5**	**15,140** **754.0**	**15,831** **788.2**
World total	... ...	**11,647** **579.5**	**24,470** **1,218.3**	**49,212** **2,449.9**	**57,115** **2,843.8**	**60,408** **3,007.4**	**63,772** **3,175.2**	**68,228** **3,397.7**	**71,799** **3,575.0**	**74,868** **3,728.0**	**76,184** **3,793.3**	**78,169** **3,892.3**	**79,515** **3,959.2**	**81,379** **4,051.6**



TESORO ALASKA PETROLEUM CORP.'S KENAI REFINERY.

Survey of operating refineries worldwide (capacities of January 1, 1981)

Country	No. plants	Crude b/cd	Catalytic cracking	Catalytic reforming
Abu Dhabi	1	12.500	....	2.520
Algeria	3	122.400	....	23.600
Angola	1	31.100	....	1.900
Argentina	12	678.550	95.900	36.900
Australia	12	743.100	160.900	160.580
Austria	1	280.000	18.900	22.600
Bahamas	1	500.000	....	....
Bahrain	1	250.000	34.200	17.100
Bangladesh	1	31.200	....	1.720
Barbados	1	3.000	....	....
Belgium	8	1,055.900	85.000	132.200
Bolivia	4	74.000	....	13.800
Brazil	13	1.401.600	216.400	21.600
Burma	2	26.300	....	....
Chile	2	139.230	34.650	9.954
China Republic (Taiwan)	2	515.410	9.040	49.760
Colombia	6	198.500	77.000	6.000
Costa Rica	1	15.000	....	....
Cyprus	1	16.000	....	2.800
Denmark	3	215.000	....	37.900
Dominican Republic	2	48.461	....	9.500
Ecuador	4	87.100	11.400	....
Egypt	6	292.000	....	7.000
El Salvador	1	16.300	....	2.800
Ethiopia	1	14.430	....	1.890
Finland	2	336.000	9.500	54.800
France	22	3.341.525	203.600	432.650
Gabon	1	20.000	....	1.400
Germany	31	3.021.247	182.400	399.718
Ghana	1	25.550	....	4.750
Greece	4	428.000	17.500	29.850
Guam	1	43.900	....	....
Guatemala	1	16.000	....	3.000
Honduras	1	14.000	....	1.800
Hungary	5	311.500	....	30.100
India	3	556.750	55.000	15.060
Indonesia	9	445.200	12.500	27.400
Iran	6	1,120.500	36.000	90.445
Iraq	7	168.500	....	5.000
Ireland	1	56.000	....	14.500
Israel	2	190.000	15.000	24.300
Italy	32	4.091.940	284.700	409.300
Ivory Coast	2	50.400	....	4.600
Jamaica	1	22.000	....	3.500
Japan	45	5.454.000	341.870	541.780
Jordan	1	36.236	4.410	870
Kenya	1	95.000....	9.000	
Korea	6	606.745	....	25.640
Kuwait	5	645.000	....	21.600
Lebanon	2	52.000	7.250	7.292
Liberia	1	15.000	....	2.400
Libya	6	142.000	....	15.500
Madagascar	1	11.440	....	1.610
Malaysia	3	177.000	....	9.400
Martinique	1	14.000	....	3.300
Mexico	9	1.393.500	297.000	81.800
Morocco	2	72.000	5.600	9.200
Mozambique	1	16.000	....	....
Netherlands	8	1,827.000	75.000	212.100
Netherlands Antilles	2	782.000	42.000	15.000
New Zealand		74.000	....	24.000
Nicaragua	1	14.400	....	2.850
Nigeria	2	160.000	26.000	22.000
Norway	4	252.700	....	29.800
Okinawa	3	208.000	....	12.500
Pakistan	3	122.036	....	4.848
Panama	1	100.000	....	7.500
Paraguay	1	7.500	....	....
Peru	4	168.900	23.390	1.760
Philippines	3	246.300	24.900	38.300
Portugal	2	341.000	....	51.500
Puerto Rico	3	284.000	52.000	76.000
Qatar	1	12.838	....	2.000
Saudi Arabia	3	487.332	....	45.386
Senegal	1	20.138	....	2.114
Sierra Leone	1	10.000	....	....
Singapore	5	1.068.750	....	39.000
Somalia	1	10.000	....	....
South Africa	4	468.500	85.000	67.500
Spain	10	1.468.800	....	191.600
Sri Lanka	1	50.000	....	3.750
Sudan	1	24.000	....	2.100
Sweden	6	450.900	....	58.000
Switzerland	2	102.300	....	22.200
Syria	2	223.040	....	16.975
Tanzania	1	12.200	....	3.500
Thailand	3	186.000	7.000	25.500
Togo	1	20.000	....	3.030
Trinidad	2	456.000	25.000	27.000
Tunisia	1	34.000	....	3.300
Turkey	4	355.700	41.260	29.875
United Kingdom	19	2.629.480	194.300	433.660
Uruguay	1	40.000	4.000	2.500
Venezuela	9	1.348.840	72.200	19.100
Virgin Islands	1	728.000	....	70.000
Yemen, S.	1	175.000	....	14.000
Yugoslavia	7	297.007	1.960	45.156
Zaire	1	17.000	....	3.000
Zambia	1	24.500	....	5.600
Total		**44045,058,775**	**2,889,730**	**4,477,693**

Country-by-country refining survey

Company and refinery location	Crude	Catalytic cracking	Catalytic reforming
ABU DHABI			
Abu Dhabi National Oil Co.–Umm Al Nar	13,500	....	2,520
ALBANIA			
Government-owned refineries at Ballsh, Cerrik, Stalin			
Total	**40,000**		
ALGERIA			
Sonatrach: Arzew	60,000	....	8,600
Hassi Messaoud	2,400		....
Maison Carree	60,000		15,000
Total	**122,400**	....	**23.600**
ANGOLA			
Cia de Petroleos de Angola–Luanda	31,100	....	1,900
ARGENTINA			
Astrasur, Refinerias Patagonicas de Petroleo SA–Comodoro Rivadavia	6,300		
Destileria Argentina de Petroleo SA–Lomas de Zamora	2,000		....
Esso SAPA–Bahia Blanca	17,000	....	....
Campana	94,400	^{1}17,900	7,900
Isaura SA–Bahia Blanca	13,850		....
Shell Cia Argentina de Petroleo SA–Buenos Aires	115,000	....	21,000
8,500			
Yacimientos Petroliferos Fiscales–			
Campo Duran	32,000	....	
Dock Sud	4,000	....	....
Ensenada	216,000	^{1}41,000	9,000
Lujan de Cuyo	120,000	^{1}16,000	9,000
Plaza Huincul	23,000	....	2,500
San Lorenzo	35,000	....	....
Total	**678,550**	**95,900**	**36.900**
AUSTRALIA			
Amoco Australia PL–Bulwer Island	41,000	^{1}7,100	8.500
Ampol Refineries Ltd.–Lytton	58,000	^{1}26,000	16,200
Australian Oil Refining PL–Kurnell	129,000	^{1}37,000	26,100
Australian Lubricating Oil Refinery Ltd.–Kurnell	....		
BP Refinery (Kwinana) PL–Kwinana	104,500	^{1}19,800	17,280
Westernport	57,000		
Mobil Oil Australia Ltd.–Adelaide	21,000		....
Petroleum Refineries Australia PL–			
Adelaide	46,500	....	16,000
Altona	98,600	^{2}24,000	28,000
Shell Refining (Australia) PL.–Clyde	76,000	24,000	16,500
Geelong	102,000	23,000	32,000
Total Refineries Australia Ltd.–Matraville	9,500		
Total	**743,100**	**160,900**	**160.580**
AUSTRIA			
OeMV-Schwechat	280,000	^{1}18.900	22.600
BAHAMAS			
Bahamas Oil Refining Co.–Freeport	500,000		
†Units not operating at present. Not included in totals.			
BAHRAIN			
Bahrain Petroleum Co.–Awali	250,000	^{2}34,200	17,100
BANGLADESH			
Eastern Refinery Ltd.–Chittagong	31,200	....	1,720
BARBADOS			
Mobil Oil Barbados Ltd.–Bridgetown	3,000	....	
BELGIUM			
Albatros BNV–Antwerp	100,000	....	13,000
BP NV–Antwerpen-Kiel	4,900	....	....
Belgian Shell NV–Ghent	8,600	....	....
Belgische Petroleum Raff NV–Antwerp	76,000	....	20,000
SA Chevron Oil Belgium NV–Feluy	140,000	....	12,000
SA Esso NV–Antwerp	225,000	^{1}18,800	37,000
SIBP NV–Antwerp	321,400	^{1}66,200	30,200
Texaco Belgium NV–Ghent	180,000	....	20,000
Total	**1,055,900**	**85,000**	**132,200**
BOLIVIA			
Yacimientos Petroliferos			
Fiscales Bolivianos–Camiri	1,000	....	....
Cochabamba	46,000	....	7,500
Santa Cruz	24,000	....	6,300
Sucre	3,000	....	....
Total	**74,000**	....	**13.800**

LEGEND

Numbers identify processes in table.

CAT CRACKING
- 1. Fluid
- 2. Thermofor
- 3. Houdriflow

CAT REFORMING
- Semiregenerative:
  - 1. Conventional catalyst
  - 2. Bimetallic catalyst
- Cyclic:
  - 3. Conventional catalyst
  - 4. Bimetallic catalyst
- Other:
  - 5. Conventional catalyst
  - 6. Bimetallic catalyst

*All figures are calendar day. Stream day figures not reported.

Company and refinery location	Crude	Catalytic cracking	Catalytic reforming
BRAZIL			
Petróleo Brasileiro SA: Araucária, Paraná	120,600	[1]37,000	....
Betim, Minas Gerais	72,400	[1]12,500	....
Canoas, Rio Grande do Sul	72,400	[1]13,100	....
Cubatão, São Paulo	171,300	[1]43,200	10,200
Duque de Caxias, Rio de Janeiro	256,200	[1]34,100	11,400
Fortaleza, Ceará	4,200	....	....
Manaus, Amazonas	9,700	[1]1,800	....
Mataripe, Bahia	135,700	[1]20,800	....
Mauá, Santo André, São Paulo	33,800	[2]14,400	....
Paulinia, São Paulo	325,000	[1]37,000	....
São José dos Campos, São Paulo	181,000	....	....
Refinaria de Petróleo Ipiranga SA–Rio Grande do Sul	9,300	[1]2,500	....
Refinaria de Petroleos de Manguinhos SA–Rio de Janeiro	10,000	....	....
Total	**1,401,600**	**216,400**	**21,600**
BULGARIA			
Government-owned refineries at Burgas, Pleven, Ruse.			
Total	**300,000**		
BURMA			
Petrochemical Industries Corp.–Chauk	6,300	....	....
Syriam	20,000	....	....
Total	**26,300**	....	....
CHILE			
Empresa Nacional del Petróleo–Concepción	73,080	[1]14,490	3,969
Concon	66,150	[1]20,160	5,985
Total	**139,230**	**34,650**	**9,954**
CHINA			
Government-owned refineries at Anshan, Chin-Hsi, Dairen, Fushun, Hangchow, Karamai-Tushantzu, Lanchow, Lenghu, Maoming, Nanchung, Nanking, Peking, Shangahi, Shegli, Taching, Tientsin, Yumen.			
Total	**1,810,000**		
CHINA REPUBLIC (Taiwan)			
Chinese Petroleum Corp.–Kaohsiung	425,000	[2]9,040	36,160
Tao-Yuan	90,410	....	13,600
Total	**515,410**	**9,040**	**49,760**
COLOMBIA			
Empresa Colombiana de Petróleos –Barrancabermeja-Santander	135,000	[1]62,000	6,000
Cartagena, Bolivar	50,000	[1]15,000	....
Orito, Putumayo	1,000	....	....
Tibu, N. de Santander	5,000	....	....
International Petroleum Colombia Ltd–La Dorada	5,000	....	....
Texas Petroleum Co.–El Guamo	2,500	....	....
Total	**198,500**	**77,000**	**6,000**
COSTA RICA			
Refinadora Costarricense de Petroleo SA–Limón	15,000	....	....
CUBA			
Government-owned refineries at Cabaiguan, Havana, Santiago de Cuba.			
Total	**160,000**		
CYPRUS			
Cyprus Petroleum Refinery Ltd.–Larnaca	16,000	....	2,800

Company and refinery location	Crude	Catalytic cracking	Catalytic reforming
CZECHOSLOVAKIA			
Government owned refineries at Bratislava, Kolin, Kralupi, Pardubice, Strazke, Zaluzi, Zyolen.			
Total	**455,000**		
DENMARK			
AS Dansk Shell–Fredericia	59,000	....	13,000
Dansk Esso AS–Kalundborg	71,000	....	7,800
Gulf Oil Refining AS–Skaelskor	85,000	....	17,100
Total	**215,000**	....	**37,900**
DOMINICAN REPUBLIC			
Falconbridge Dominicana C por A–La Peguera	16,461	....	....
Refineria Dominicana de Petróleo SA–Nigua	32,000	....	9,500
Total	**48,461**	....	**9,500**
ECUADOR			
CEPE–Esmeraldas	50,300	[1]11,400	....
Anglo–La Libertad	29,200	....	....
Gulf–La Libertad	6,600	....	....
Texaco–Lago-Agrio	1,000	....	....
Total	**87,100**	**11,400**	....
EGYPT			
Alexandria Petroleum Co.–Alexandria	64,000	....	....
El Nasr Petroleum Co.–Alexandria	60,000	....	....
Suez	50,000	....	....
Suez Oil Processing Co.–Mostord	78,000	....	7,000
Suez	20,000	....	....
Tanta	20,000	....	....
Total	**292,000**	....	**7,000**
El SALVADOR			
Refineria Petrólera Acajutla SA–Acajutla	16,300	....	2,800
ETHIOPIA			
Ethiopian Petroleum SC–Assab	14,430	....	1,890
FINLAND			
Neste Oy–Naantali	56,000	[2]9,500	6,800
Porvoo	280,000	....	48,000
Total	**336,000**	**9,500**	**54,800**
FRANCE			
Cie. Francaise de Raffinage–Gonfreville L'Orcher	454,000	[1]28,500	63,500
La Mede	200,000	[1]30,000	41,000
Mardyck	128,000	....	20,500
Cie. Rhénane de Raffinage–Reichstett-Vendenheim	86,000	....	13,000
Elf France–Donges	181,800	[1]10,800	26,000
Feyzin	194,600	[1]15,400	9,200
Gargenville	133,000	....	....
Grandpuits	101,300	[1]18,300	12,900
Valenciennes	66,900	....	12,300
Esso SAF–Ambes	57,000	....	8,100
Fos sur Mer	170,000	[1]14,300	25,700
Port Jerome	160,000	[1]18,300	27,000
Mobil Oil Francaise–Frontignon	100,000	[2]17,000	20,000
Notre Dame de Gravenchon	72,500	....	17,000
Shell Francaise–Berre l'Etang	274,000	17,000	16,000
Pauillac	82,000	17,000	13,500
Petit Couronne	322,000	17,000	43,000
Ste. Francaise des Petroles BP–Dunkirk	105,450	....	11,250
Lavera	181,925	....	5,400
Vernon	75,050	....	10,800

Company and refinery location	Crude	Catalytic cracking	Catalytic reforming
Ste. de la Raffinerie de Lorraine–Hauconcourt (Moselle)	104,000	....	14,500
Ste. de la Raffinerie de Strasbourg–Herrlisheim	92,000	....	22,000
Total	**3,341,525**	**203,600**	**432,650**
GABON			
Ste. Gabonaise de Raffinage–Port Gentil	20,000	....	1,400
GERMANY, EAST			
Government-owned			
	Total ...	**470,000**	
GERMANY, WEST			
Caltex Deutschland GmbH–Raunheim	90,000	....	3,700
Deutsche BP AG–Dinslaken	177,650	[1]15,300	14,400
Finkenwerder, Hamburg	89,300	....	7,650
Vohburg	104,500	[1]15,300	16,200
Deutsche Marathon Petroleum GmbH–Burghausen	70,000		
Deutsche Shell AG–Godorf	180,000	....	27,000
Harburg-Grasbrook	86,000	12,000	15,000
Ingolstadt	56,000	....	8,000
Monheim	8,000	....	....
Deutsche Texaco AG–Heide	105,000	[2]8,000	14,000
Elf Gelsenberg–Speyer	169,000	....	23,300
Erdol Raffinerie Duisburg GmbH–Duisburg	37,800		7,300
Erdolraffinerie Ingolstadt AG–Ingolstadt, Donau	90,000	....	
Erdoel Raffinerie Neustadt GmbH–Neustadt-Donau	144,000	[1]22,700	17,700
Esso AG–Hamburg	110,000	[1]15,100	13,600
Ingolstadt	100,000	[1]20,200	13,600
Karlsruhe	160,000	....	30,200
Koln	115,000	....	8,800
Fina Bitumenwerke GmbH–Mulheim, Ruhr	10,400	....	
Gwerkschaft Erdol-Raffinerie Deurag-Nerag–Misburg	45,000	....	7,000
Mobil Oil AG–Wilhelmshaven	160,000	....	32,000
Worth	75,000	[1]12,000	14,000
Oberrheinische Mineralolwerke GmbH–Karlsruhe	142,000	[1]45,000	25,600
Oelwerke Julius Schindler GmbH–Hamburg	8,835	....	
Saarland-Raffinerie GmbH–Volklingen	80,912	....	....
Union Rheinische Braunkohlen Kraftstoff AG–Wesseling	125,000	....	8,800
Veba Oel AG–Gelsenkirchen-Buer	161,000	[1]4,900	20,000
Gelsenkirchen-Horst	113,000	[2]11,900	30,700
Wintershall AG–Lingen	90,370	....	29,119
Mannheim	112,460	....	12,049
Salzbergen	5,020	....	....
Total	**3,021,247**	**182,400**	**399,718**
GHANA			
Ghanaian Italian Petroleum CL–Tema	25,550	....	4,750
GREECE			
Hellenic Aspropyrgos Refinery SA–Aspropyrgos	116,000	....	14,700
Motor Oil (Hellas) Corinth Refineries SA–Aghii Theodori	140,000	[1]17,500	8,500
Petrola Hellas SA–Eleusis	100,000	....	....
Thessaloniki Refining Co. AE–Thessaloniki	72,000	....	6,650
Total	**428,000**	**17,500**	**29,850**
GUAM			
Guam Oil & Refining Co.–Apra Heights	43,900	....	....

Company and refinery location	Crude	Catalytic cracking	Catalytic reforming
GUATEMALA			
Texas Petroleum Co.–Escuintla	16,000	....	3,000
HONDURAS			
Refineria Texas de Honduras SA–Puerto Cortes	14,000	....	1,800
HUNGARY			
Dunai KV–Szazhalombatta	196,000	....	26,000
Komaromi KV–Komarom	32,500	....	4,100
Tiszai KV Leninvaros	66,500	....	....
Nyirbogdany	6,500	....	....
Zalai KV–Zalaegerszeg	10,000	....	....
Total	**311,500**	**....**	**30,100**
INDIA			
Assam Oil CL–Digboi	11,500	....	....
Bharat Petroleum CL–Mahul, Bombay	120,000	[1]17,000	7,000
Cochin Refineries Ltd.–Ambalamugal	66,000	....	5,660
Hindustan Petroleum CL–Visakhapatnam	28,850	[1]7,700	....
Indian Oil CL–Barauni	64,000	12,800	....
Baroda	144,000	7,000	....
Gauhati	16,400	6,000	....
Haldia	50,000	4,500	....
Madras Refineries Ltd.–Manali	56,000	....	2,400
Total	**556,750**	**55,000**	**15,060**
INDONESIA			
Lemigas–Cepu, Central Java	2,000	....	....
Pertamina–Balikpapan, Kalimantan	75,000	....	....
Cilacap, Central Java	100,000		12,200
Dumai, Central Sumatra	100,000		6,200
Pangakalan Brandan, North Sumatra	4,500	....	....
Plaju, South Sumatra	61,200	....	9,000
'90 Sungei Gerong, South Sumatra	50,000	[1]12,500	....
'750 Sungei Pakning, Central Sumatra	50,000	....	....
Wonokromo, East Java	2,500	....	....
Total	**445,200**	**12,500**	**27,400**
IRAN			
National Iranian Oil Co.–Abadan	586,500	[1]36,000	23,500
Esfahan	200,000	....	29,600
Kermanshah	18,000	....	3,100
Masjid-e-Sulaiman	66,000	....	....
Shiraz	40,000	....	6,245
Tehran	210,000	....	28,000
Note: Present status uncertain due to Iran-Iraq war.			
Total	**1,120,500**	**36,000**	**90,445**
IRAQ			
Oil Refineries Administration–Basra	70,000	....	....
Daura	71,000	....	5,000
K3-Haditha	7,000	....	....
Khanaqin	12,000	....	....
Shiraz	40,000	....	....
Qaiyarah,Mosul	2,000	....	....
Iraqi Company for Oil Operations–		Kirkuk	2,000
Total	**168,500**	**....**	**5,000**
Note: Present status uncertain due to Iran-Iraq war.			
IRELAND			
Irish Refining CL–Whitegate	56,000	....	14,500
ISRAEL			
Oil Refineries Ltd.–Ashdod	70,000	....	9,300
Haifa	120,000	[1]15,000	15,000
Total	**190,000**	**15,000**	**24,300**

ITALY

Company and refinery location	Crude	Catalytic cracking	Catalytic reforming
Amoco Italia SpA-Cremona	96,000	....	10,300
ANIC SpA-Gela	80,000	32,000	[1]21,000
14,000			
Ragusa	7,000	....	....
Anonima Petroli Italiana-Falconara, Marittima	83,000	....	11,000
Aquila SpA-Trieste	110,000	....	17,000
ERG SpA-Genoa, San Quirico	130,000	....	9,900
Esso Italiana Spa-Augusta, Siracusa	181,200	[1]40,100	15,100
Gaeta Industrie Petroli SpA-Gaeta	100,000	....	9,000
Industrie Chimiche Italiane de Petrolio SpA-Frassino, Mantovano	55,000	....	9,500
Industria Italiana Petroli-La Spezia	103,000	....	20,200
Rho	79,800	[2]13,700	16,000
Taranto	90,900	....	16,000
Industria Legnati Stradal, del affini (Ilsea)-Como	10,140	....	1,700
Irom-Industria Raffinazione Oli Minerali-Porto Marghera	108,000	....	17,500
Iplom Raffineria Petroli SpA-Busalla	46,500	....	....
ISAB-Melilli	220,000	....	24,000
Lombarda Petroli SpA-Villasanta	23,500	....	4,000
Mach SpA-Volpiano, Torino	80,000		11,500
Mediterranea Spa-Milazzo, Sicily	505,000	[1]45,000	10,000
Mobil Oil Italiana SpA-Naples	100,000	[2]18,400	12,500
Montedison SpA-Priolo, Siracusa	380,000	[1]25,000	10,000
Raffineria Delle Piane SpA-Genoa, San Quirico	3,000	....	
Raffineria del Po SpA-Sannazaro de Burgondi	230,000	[1]19,500	41,000
Raffineria de Roma SpA-Rome	91,200	....	15,100
Sanquirico SpA-Genoa, San Quirico	32,500	....	1,500
Saras SpA-Sarroch	360,000	[1]57,000	28,000
Sardoil SpA-Porto Torres, Sassari	105,000	....	12,000
Sarni SpA-Bertonico	80,000	....	12,000
Sarom-Ravenna	250,000	....	14,000
Saroom-Trecate, Novara	215,000	[1]12,000	27,000
Soc. Petrolifera Italiana-Arcola, La Spezia	25,000	....	....
Stanic-Livorno	111,200	[1]33,000	19,500
Total	**4,031,940**	**284,700**	**409,[illegible]00**

IVORY COAST

Company and refinery location	Crude	Catalytic cracking	Catalytic reforming
Ste. Ivoirienne de Raffinage-Abidjan	40,000	....	4,600
Ste. Multinationale de Bitume-Abidjan	10,400	....	....
Total	**50,400**	**4,600**	....

JAMAICA

Company and refinery location	Crude	Catalytic cracking	Catalytic reforming
Esso West Indies Ltd.-Kingston	22,000	....	3,500

JAPAN

Company and refinery location	Crude	Catalytic cracking	Catalytic reforming
Asia Kyoseki CL-Sakaide, Kagawa	135,000	[1]9,000	9,000
Asia Oil CL-Hakodate	22,500	....	1,170
Yokohama, Kanagawa	90,000	....	12,600
Chita Oil Ltd.-Chita, Aichi	100,000	....	22,000
Daikyo Oil CL-Yokkaichi City	215,000	[1]23,500	9,000
Fuji Kosan Oil CL-Kainan	77,600	....	....
Fuji Oil CL-Sodegaura	189,900	[1]10,800	13,600
General Sekiyu Seisei KK-Kawasaki	57,000	....	8,500
Sakai	114,000	....	2,500
Idemitsu Kosan CL-Aichi	130,000	....	16,000
Chiba	310,000	[1]34,000	32,000
Hokkaido	70,000	....	11,000
Hyogo	110,000	....	15,000
Tokuyama	140,000	[1]15,000	15,000
Kashima Oil CL-Kashima, Ibaragi	180,000	[1]14,000	6,000
Koa Oil CL-Marifu	141,550	[1]12,600	9,900
Osaka	76,000	[1]14,400	8,100
Kyokuto Petroleum Ltd.-Chiba	143,000	....	14,500
Kyushu Oil CL-Oita	170,000	[1]12,000	8,000
Maruzen Oil CL-Chiba	176,000	[1]18,000	22,600
Matsuyama	45,200	....	4,500
Sakai	99,500	[1]13,600	4,500
Shimotsu	33,900	[1]3,600	5,000
Mitsubishi Oil CL-Kawasaki	94,500	....	14,850
Mizushima	243,000	[1]21,400	30,330
Nichimo Sekiyu Seisei KK-Kawasaki	100,000	[1]2,500	11,000
Nihonkai Oil CL-Toyama	60,000	....	....
Nippon Mining CL-Funakawa	14,150	....	....
Mizushima	235,200	[1]20,000	23,000
Nippon Oil CL-Niigata	28,000	....	5,100
Nippon Petroleum Refining CL-Kudamatsu	42,000	....	5,200
Muroran	110,000	[1]10,000	18,000
Negishi	330,000	[1]20,000	31,000
Yokohama	70,000	[1]5,600	3,300
Seibu Sekiyu KK-Onoda	172,000	....	18,000
Showa Sekiyu KK-Kawasaki	135,000	....	20,000
Niigata	40,000	....	4,400
Showa Yokkaichi Sekiyu KK-Yokkaichi	276,000	15,000	31,000
Taiyo Oil CL-Ehime	69,000	....	5,000
Toa Nenryo Kogyo-Kawasaki	190,000	[1]45,900	14,400
Shimizu	41,300	....	4,130
Wakayama	177,700	[1]20,970	32,400
Toa Oil CL-Kawasaki	100,000	....	11,000
Toho Oil CL-Owase	40,000	....	....
Tohoku Oil Co.-Sendai	60,000	....	9,200
Total	**5,454,000**	**341,870**	**541,780**

JORDAN

Company and refinery location	Crude	Catalytic cracking	Catalytic reforming
Jordan Petroleum Refinery-Zarqa	36,236	[1]4,410	870

KENYA

Company and refinery location	Crude	Catalytic cracking	Catalytic reforming
East African Oil Refineries Ltd.-Mombasa	95,000	....	9,000

KOREA, N.

Company and refinery location	Crude	Catalytic cracking	Catalytic reforming
Government-owned, Unggi	42,000		

KOREA, S.

Company and refinery location	Crude	Catalytic cracking	Catalytic reforming
Honam Oil Refinery CL-Yosu	215,000	....	6,600
Korea Oil Corp.-Ulsan	263,000	....	15,440
Kukdong Oil CL-Busan	12,500	....	....
Kyung In Energy CL-Inchon	60,000	....	3,600
Modern Petroleum CL-Busan	2,000	....	....
Ssangyong Oil Refining CL-Onsan	54,245	....	....
Total	**606,745**	....	**25,640**

KUWAIT

Company and refinery location	Crude	Catalytic cracking	Catalytic reforming
Arabian Oil CL-Ras Al Khafji	30,000	....	....
Getty Oil Co.-Mina Saud	50,000	....	....
Kuwait National Petroleum Co.-Mena Abdulla	125,000	....	....
Shuaiba	190,000	....	16,000
Kuwait Oil Co.-Mina Al-Ahmadi	250,000	....	5,600
	Total ...	**645,000**	....
21,600			

LEBANON

Company and refinery location	Crude	Catalytic cracking	Catalytic reforming
Tripoli Oil Installations-Tripoli	35,000	[1]7,250	4,392
Mediterranean Refining Co.-Sidon	17,000	....	2,900
Total	**52,000**	**7,250**	**7,292**

LIBERIA

Company and refinery location	Crude	Catalytic cracking	Catalytic reforming
Liberia Petroleum Refining-Monrovia	15,000	....	2,400

LIBYA

Company and refinery location	Crude	Catalytic cracking	Catalytic reforming
Esso Standard Libya Inc.-Marsa El Brega	11,000	....	2,500
Libyan National Oil Co.-Amal	1,800	....	....
Azzawiya	120,000	....	13,000
Gialo	4,400	....	....
Intisar	1,800	....	....
Zuetina	3,000	....	....
Total	**142,000**	....	**15,500**

Company and refinery location	Crude	Catalytic cracking	Catalytic reforming
MADAGASCAR			
Solima-Managareza, Tamatave	11,440		1,610
MALAYSIA			
Esso Malaysia Berhad-Port Dickson	42,000	...	5,400
Sarawak Shell Berhad-Luton	45,000	...	...
Shell Refining Co. Berhad-Port Dickson	90,000	...	4,000
Total	177,000	....	9,400
MARTINIQUE			
fs0Ste. Anonyme de la Raffinerie des Antilles-Fort-de-France	14,000		3,300
MEXICO			
Petroleos Mexicanos-Azcapotzalco	105,000	[1]23,000	
Cadereyta	235,000	[1]40,000	
Madero	185,000	[1]51,000	15,000
Minatitlan	290,000	[1]24,000	12,000
Poza Rica	38,000		
Reynosa	20,500	...	
Salamanca	200,000	[1]40,000	24,800
		[2]18,000	
Salina Cruz	170,000	[1]40,000	
Tula, Hidalgo	150,000	[1]40,000	30,000
Total	1,393,500	297,000	81,800
MOROCCO			
fs0Samir-Mohammedia	50,000	.	6,500
Ste. Cherifienne des Petroles-Sidi Kacem	22,000	[2]5,600	2,700
Total	72,000	5,600	9,200
MOZAMBIQUE			
Government owned	16,000		
NETHERLANDS			
BP Raffinaderij Nederland NV-Rotterdam	494,000	....	25,200
Chevron Petroleum M., (Nederland) BV-Pernis	260,000	27,000	38,000
Esso Nederland BV-Rotterdam	185,000	...	48,700
Gulf Oil Raffinaderij BV-Europoort	75,000	...	8,200
Mobil Oil BV-Amsterdam	125,000	...	24,000
Shell Nederland Raffinaderij BV-Pernis	530,000	75,000	54,000
Smid & Hollander BV-Amsterdam	8,000		...
Total Raffinaderij Nederland NV-Vlissingen	150,000	....	14,000
Total	1,827,000	75,000	212,100
NETHERLANDS ANTILLES			
Lago Oil & Transport CL-Aruba	420,000	....	....
Shell Curacao NV-Curacao	362,000	42,000	15,000
Total	782,000	42,000	15,000
NEW ZEALAND			
New Zealand Refining-Whangarei	74,000	....	24,000
NICARAGUA			
Esso Standard SA Ltd.—Managua	14,400	....	2,850

Company and refinery location	Crude	Catalytic cracking	Catalytic reforming
NIGERIA			
Nigerian Petroleum Refining CL—			
Alesa Eleme	60,000		6,000
Warri	100,000	[1]26,000	16,000
Total	150,000	26,000	22,000
NORWAY			
AS Norske Esso-Slagentangen	100,000		9,800
Valloy	2,700		...
AS Norske Shell-Sola	60,000		10,000
Rafinor AS-Mongstad	90,000	...	10,000
Total	252,700	....	29,800
OKINAWA			
Nansei Sekiyu KK-Nishihara	80,000		10,500
Nippon Petroleum Refining CL—Nakagusuku	28,000		2,000
Okinawa Sekiyu Seisei—Okinawa City	100,000		...
Total	208,000	....	12,500
PAKISTAN			
Attock Refinery Ltd.—Rawalpindi	36,450		...
National Refinery Ltd.—Korangi, Karachi	42,086		1,998
Pakistan Refinery Ltd.—Karachi	43,500		2,850
Total	122,036	....	4,848
PANAMA			
Refineria Panama SA—Las Minas	100,000		7,500
PARAGUAY			
Refineria Paraguaya SA—Villa Elisa	7,500		...
PERU			
Petroleos del Peru—La Pampilla	100,000	[1]6,670	1,760
Marsella	1,400	...	...
Pucallpa	2,500	...	
Talara	65,000	[1]16,720	
Total	168,900	23,390	1,760
PHILIPPINES			
Bataan Refining Corp.—Limay	117,300	[2]13,000	21,400
Caltex (Philippines) Inc.-Batangas	61,000	[1]11,900	8,600
Pilipinas Shell Petroleum—Tabango	68,000	...	8,300
Total	246,300	24,900	38,300
POLAND			
Government-owned refineries at Glinik Mariampolski, Jasto, Jealicze, L. Warynski, Czechowice,, Plock, Trzebinia, Gdansk, Kralaty. Of these, Plock is by far production in mid-1979. Its crude capacity isnearly 300,000 b/d.			
	Total ...	385,000	
PORTUGAL			
Petrogal—Oporto	141,000	...	26,500
Sines	200,000	...	25,000
Total	341,000	....	51,500
PUERTO RICO			
Caribbean Gulf Refining Corp—Bayamón	38,000	[1]12,000	6,000
Commonwealth Oil Refining CI—Peñuelas	161,000	[3]40,000	70,000

Company and refinery location	Crude	Catalytic cracking	Catalytic reforming
Yabucoa Sun Oil Co.—Yabucoa	85,000	....	
Total	**284,000**	**52,000**	**76,000**
QATAR			
National Oil Distribution Co.—Umm Said	12,838	....	2,000
RUMANIA			
Government-owned refineries at Brazi, Pitesti, Sulpacu, Bacau, Borzesti, Brazov, Cimpina, Darmanesti, G. Gheorghiu Dej, Onesti, Ploesti, Telaejen, and stream in early 1979 at 75,000 b/d			
Total	**617,000**		
SAUDI ARABIA			
Arabian American Oil Co.—Ras Tanura	415,000	100,000	37,000
Jeddah Oil Refinery—Jeddah	54,250	....	2,600
Riyadh Oil Refinery—Riyadh	18,082	....	5,786
Total	**487,332**	....	**45,386**
SENEGAL			
Ste. Africaine de Raffinage—M'Bao (Dakar)	20,138	....	2,114
SIERRA LEONE			
Sierra Leone Petroleum Refining Co.—Freetown	10,000	....	....
SINGAPORE			
BP Refinery Singapore PL Pasir Panjang	23,750		....
Esso Singapore PL—Jurong	240,000	....	9,000
Mobil Oil Singapore PL—Jurong	175,000	....	13,000
Shell Eastern Petroleum Ltd.—Pulau Bukom	460,000	....	17,000
Singapore Refinery CL—Pulau Merlimau	170,000	....	....
Total	**1,068,750**	....	**39,000**
SOMALIA			
Iraqsoma Ref. Co.—Mogadishu	10,000	....	....
SOUTH AFRICA			
Caltex Oil SA PL—Cape Town	90,000	[1]25,000	10,500
Mobil Oil Refining Co.—Southern Africa PL—Durban	100,000	[1]15,000	19,000
†Durban	....	....	....
National Petroleum Refiners of South Africa PL—Sasolburg OFS	78,500	[1]18,000	12,000
Shell and BP South African Petroleum Refineries PL—Durban	200,000	[1]27,000	26,000
Total	**468,500**	**85,000**	**67,500**

†South African Oil Refining Co. is owner; Mobil is operator.

Company and refinery location	Crude	Catalytic cracking	Catalytic reforming
SPAIN			
Asfaltos Españoles SA—Tarragona	21,000	....	....
Cia. Española de Petróles—Algeciras	160,000	....	35,000
Tenerife	160,000	....	15,000
Cia. Ibérica Refinadora de Petroleos—La Coruña	130,000	....	22,000
Enpetrol—Cartagena, Murcia	220,000	....	25,000
Puertollano, Ciudad Real	150,000	....	17,000
Tarragona	182,800	....	16,000
Petróleos del Mediterraneo—Castellón de la Plana	120,000	....	14,000
Refineria de Petróleos del Norte SA—Somorrostro, Vizcaya	240,000	....	33,500
Unión Explosivos Rio Tinto SA—La Rábida, Huelva	80,000	....	14,100
TTotal	**1,463,800**	....	**191,600**
SRI LANKA			
Ceylon Petroleum Corp.—Sapugaskande	50,000	....	3,750
SUDAN			
Port Sudan Refinery Ltd.—Port Sudan	24,000	....	2,100
SWEDEN			
AB Nynas Petroleum—Gothenburg	7,000	....	....
Malmo	2,900	....	....
Nynashamn	45,000	....	6,000
BP Raffinaderi—Gothenburg	106,000	....	....
Shell Raffinaderi AB—Gothenburg	90,000	....	17,000
Skandinaviska Raffinaderi AB—Brofjorden-Lysekil	200,000	....	35,000
Total	**450,900**	....	**58,000**
SWITZERLAND			
Raffinerie de Cressier SA—Cressier	65,000	....	15,000
Raffinerie du Sud-Ouest SA—Collombey	37,300	....	7,200
Total	**102,300**	....	**22,200**
SYRIA			
Banias Refining Co.—Banias	120,600	....	14,355
Homs Refinery Co.—Homs	102,440	....	2,620
Total	**223,040**	....	**16,975**
TANZANIA			
Tanzanian & Italian Petroleum Refining CL—Kigamboni, Dar es Salaam	12,200		3,500
THAILAND			
Esso Standard Thailand Ltd.–Cholburi	56,000	....	7,000
Summit Industrial Corp. (Panama)–Bangchak, Prakanong	65,000	....	9,500
Thai Oil Refinery CL–Sriracha, Cholburi	65,000	7,000	9,000
Total	**186,000**	**7,000**	**25,500**
TOGO			
Ste. Togolaise des Hydrocarbures—Lome	20,000	....	3,030
TRINIDAD			
Texaco Trinidad Inc.—Pointe-a-Pierre	356,000	[1]25,000	20,000
Trinidad and Tobago Oil CL—Point Fortin	100,000	....	7,000
Total	**456,000**	**25,000**	**27,000**
TUNISIA			
Ste. Tunisienne Industries des Raffinage—Bizerte	34,000	....	3,300

Company and refinery location	Crude	Catalytic cracking	Catalytic reforming
TURKEY			
Anadolu Tasfiyehanesi AS—Mersin	90,000	....	10,500
Istanbul Petrol Rafinerisi AS—Izmit	170,000	[1]25,000	10,000
Turkish Petroleum Corp.—Aliaga	74,000	[1]12,660	8,200
Batman	21,700	[2]3,600	1,175
Total	**355,700**	**41,260**	**29,875**
UNITED KINGDOM			
England			
BP Oil Kent Refinery—Isle of Grain	224,675	[1]16,650	35,100
Burmah-Castrol Co.—Ellesmere Port	25,280	....	5,060
Conoco Ltd.—South Killingholme	130,000	....	43,000
Esso Petroleum CL—Fawley	355,400	[1]74,400	53,300
Lindsey Oil Refinery Ltd.—Killingholm, South Humberside	189,000	....	33,400
Mobil Oil CL—Coryton, Essex	175,000	[2]9,500	33,000
Phillips Imperial Petroleum Ltd.—Port Clarence	100,000	....	....
Philmac Oils Ltd.—Eastham, Cheshire	13,000	....	....
Shell U.K. Ltd.—Shell Haven	175,000	13,700	44,000
Stanlow	250,000	49,000	38,000
Teesport	107,000	....	15,000
Total	**1,744,355**	**163,250**	**299,860**
Northern Ireland			
BP Refinery Northern Ltd.—Belfast	32,300	....	5,850
Scotland			
BP Refinery Grangemouth Ltd.—Grangemouth	181,925	[1]16,200	22,950
Shell U.K. Ltd.—Ardrossan	5,500	....	....
Total	**187,425**	**16,200**	**22,950**
Wales			
Amoco UK Ltd.—Milford Haven	102,000	....	9,000
BP Oil Llandarcy Refinery Ltd.—Llandarcy, Neath	106,400	[1]14,850	10,800
Esso Petroleum CL—Milford Haven, Dyfed	174,000	....	43,200
Gulf Oil Refining Ltd.—Milford Haven	103,000	....	22,000
Texaco Ltd.—Pembroke, Dyfed	180,000	....	20,000
Total	**665,400**	**14,850**	**105,000**
Total United Kingdom	**2,629,460**	**194,300**	**433,660**
URUGUAY			
Administracion Nacional de Combustibles, Alcohol y Portland–La Teja, Montevideo	40,000	[1]4,000	2,500
U.S.S.R.			
Government-owned refineries at Angarsk, Batumi, Fergana, Gorki, Grozny, Guryev, Ishim-bai, Khabarovsk, Kherson, Kirishi, Komosomolsk, Krasnovodsk, Novo, Baku, Omsk, Orsk, Polotsk, Ryazan, Saratov, Syzran, Tuapse, Ufa, Ukhta, Vannovskiy, Volgograd, Yaroslavl, Pavlodar, and Mazheikiai.			
Total	**11,400,000**		
VENEZUELA			
Corpoven–Bajo Grande	58,450	....	....
El Palito	104,000	....	6,500
El Toreno	4,700	....	....
Lagoven–Amuay Bay	630,900	....	12,600
Maraven–Cardon	325,210	[1]57,600	....
San Lorenzo	25,780	....	....
Meneven–El Chaure	39,500	....	....
Puerto La Cruz	156,000	[1]14,600	....
San Roque	4,300	....	....
Total	**1,348,840**	**72,200**	**19,100**

Note: Caripito, Moron, and Tucupita refineries not in operation. †Not operating.

Company and refinery location	Crude	Catalytic cracking	Catalytic reforming
VIRGIN ISLANDS			
Hess Oil Virgin Islands Corp.–St. Croix	728,000	....	70,000
YEMEN, S.			
Aden Refinery Co.–Little Aden	175,000	....	14,000
YUGOSLAVIA			
Bosanski Brod	43,129	....	6,360
Lendava	13,500	....	....
Novi Sad	11,100	....	....
Pancevo	29,878	....	3,996
Rijeka	160,000	....	18,500
Sisak	38,800	[1]1,960	16,300
Zagreb	600	....	....
Total	**297,007**	**1,960**	**45,156**
ZAIRE			
Soc. Zairo-Italienne de Raffinage–Muanda	17,000	....	3,000
ZAMBIA			
Indeni Petroleum Refinery CL–Bwana Mkubwa Area, Ndola	24,500	....	5,600

UNITED STATES

Comoany and location	Crude capacity b/cd	..... Charge capacity b/sd ..... Cat cracking	Cat reforming
ALABAMA			
Hunt Oil Co.—Tuscaloosa	35,500	....	[2]6,000
Louisiana Land & Exploration Co.—Saraland	43,000	....	[2]13,000
Marion Corp.—Theodore	25,300		[2]4,500
Mobile Bay Refining Co.—Chickasaw	28,100		
Vulcan Refining Co.—Cordova	10,500	....	....
Warrior Asphalt Co. of Alabama Inc.—Holt	4,835	....	....
Total	**147,235**	**....**	**23,500**
ALASKA			
Atlantic Richfield Corp.—Prudhoe Bay	14,000	....	....
Chevron U.S.A. Inc.—Kenai	22,000	....	....
North Pole Refining, Division of Mapco—North Pole	45,500	....	....
Tesoro Petroleum Corp.—Kenai	48,500	....	[2]10,000
Total	**130,000**	**....**	**10,000**
ARIZONA			
Arizona Fuels Corp.—Fredonia	5,800	....	....
ARKANSAS			
Berry Petroleum, Division of Crystal Oil Co.—Stevens	4,000	....	....
Cross Oil & Refining Co. of Arkansas—Smackover	9,800	....	....
Macmillan Ring-Free Oil Co.—Norplet	4,400	....	....
Tosco Corp.—El Dorado	47,000	[1]15,000	[4]10,000
Total	**65,200**	**15,000**	**10,000**
CALIFORNIA			
Atlantic Richfield Co.—Carson	212,000	[1]56,000	[2]38,000
Beacon Oil Co.–Hanford	17,880	....	[2]3,650
Champlin Petroleum Co.–Wilmington	60,000	....	[2]12,000

Company and location	Crude capacity b/cd	..... Charge capacity b/sd ..... Cat cracking	Cat reforming
Chevron U.S.A. Inc.— Bakersfield	26,000	....	[2]6,000
El Segundo	405,000	[1]63,000	[1]60,000
Richmond	365,000	[1]63,000	84,000
Coastal Petroleum Refiners Inc.—Bakersfield	8,500	....	....
Conoco Oil Co.—Paramount	46,500	....	11,500
DeMenno-Kerdoon-Compton	15,000	....	....
Douglas Oil Co.—Santa Maria	9,500	....	....
Eco Petroleum Inc.—Signal Hill	11,000	....	....
Edgington Oil Cl—Long Beach	41,600	....	....
Exxon Co.—Benicia	103,000	[1]50,000	[3]26,000
Fletcher Oil & Refining Co.—Carson	29,500	....	[2]4,200
Getty Refining & Marketing Co.—Bakersfield	63,000	....	[2]9,200
Gibson Oil & Refining Co.—Bakersfield	4,600	....	....
Golden Bear Division, Witco Chemical Corp.—Oildale	11,000	....	....
Golden Eagle Refining Co.—Carson	16,500	....	....
Gulf Oil Co.—Santa Fe Springs	51,500	[1]13,500	[2]19,000
Huntway Refining Co.—Wilmington	5,425	....	....
Kern County Refinery Inc.—Bakersfield	21,400	....	[2]3,000
Lunday-Thagard Oil Co.—South Gate	10,850	....	....
Macmillan Ring-Free Oil Cl—Signal Hill	13,000	....	....
Marlex Oil & Refining Inc.—Long Beach	19,000	....	....
Mobil Oil Corp.—Torrance	123,500	[1]61,000	[2]36,000
Newhall Refining Cl—Newhall	21,000	....	[2]2,300
Oxnard Refinery—Oxnard	4,700	....	....
Pacific Refining Co.—Hercules	....	....	[2]16,000
Powerine Oil Co.—Santa Fe Springs	44,120	[1]13,500	[2]7,500
Road Oil Sales—Bakersfield	6,000	....	....
Sabre Refining Inc.—Bakersfield	12,350	....	....
San Joaquin Refining Co.—Gildale	27,000	....	....
Shell Oil Co.—Martinez	104,000	[1]60,000	[3]25,000
Wilmington	108,000	[1]35,000	[2]24,000
Sierra Anchor—McKittrick	14,000	....	....
Sunland Refining Corp.—Bakersfield	15,000	....	[2]1,500
Texaco Inc.—Wilmington	75,000	27,000	35,000
Tosco Corp.—Bakersfield	....	[2]12,000	[2]16,500
Martinez	126,000	[1]47,000	[1]8,700 [2]21,300 [6]20,000
Union Oil Co. of California— • Los Angeles	108,000	[1]45,000	[2]49,000
Rodeo	111,000	....	[2]28,000
USA Petrochem Corp.—Ventura	27,900	....	[2]7,500
West Coast Oil Co.—Oildale	21,000	....	....
Total	**2,634,075**	**549,000**	**578,738**

COLORADO

Company and location	Crude capacity b/cd	Cat cracking	Cat reforming
Asamera Oil U.S. Inc.—Commerce City	NR	[1]7,000	[2]10,000
Conoco Inc.—Denver	10,100	....	[2]6,500
Gary Refining Co.—Fruita	13,000	....	[2]2,500
Total	**61,100**	**7,000**	**19,000**

DELAWARE

Company and location	Crude capacity b/cd	Cat cracking	Cat reforming
Getty Refining and Marketing Co.—Delaware City	140,000	[1]62,000	[2]42,000

UNITED STATES

Survey of operating refineries (capacities as of January 1, 1981)

State	No. plants	Crude Crude capacity b/cd	--Charge capacity, b/sd-- Cat cracking fresh feed	Cat reforming
Alabama	6	147,235	......	23,500
Alaska	4	130,000	......	10,000
Arizona	1	5,800	......	......
Arkansas	4	65,200	15,000	10,000
California	43	2,634,075	549,000	578,738
Colorado	3	61,100	7,000	19,000
Delaware	1	140,000	62,000	42,000
Florida	2	41,400	......	......
Georgia	2	28,750	......	......
Hawaii	2	115,900	22,000	12,000
Illinois	11	1,207,050	449,110	319,677
Indiana	8	604,507	212,000	123,700
Kansas	11	458,832	•177,550	121,400
Kentucky	4	244,100	70,000	49,000
Louisiana	33	2,449,274	876,677	461,713
Maryland	2	29,200	......	......
Michigan	5	130,000	43,000	34,400
Minnesota	3	217,800	85,500	34,600
Mississippi	8	371,525	72,200	95,400
Missouri	1	104,000	42,000	16,000
Montana	6	153,900	50,100	44,200
Nebraska	1	5,600	2,400	750
Nevada	1	4,275	......	......
New Hampshire	1	13,000	......	......
New Jersey	5	679,250	231,444	79,944
New Mexico	7	114,388	18,200	25,750
New York	3	130,900	42,000	23,000
North Carolina	1	11,900	......	......
North Dakota	3	65,858	26,000	12,500
Ohio	7	590,950	205,500	170,700
Oklahoma	12	567,270	206,700	127,222
Oregon	1	15,000	......	......
Pennsylvania	9	738,050	216,300	232,900
Tennessee	1	49,000	30,000	9,300
Texas	59	5,259,990	1,555,565	1,175,109
Utah	8	163,930	54,000	23,200
Virginia	1	53,000	28,000	9,500
Washington	7	392,000	94,833	112,722
West Virginia	2	22,100	......	6,400
Wisconsin	1	40,000	9,700	10,000
Wyoming	13	209,290	77,477	37,094
	303	**18,465,399**	**5,531,256**	**4,051,419**

REFINERY CAPACITY STATISTICS

Company and location	Crude capacity b/cd	..... Charge capacity b/sd	
		Cat cracking	Cat reforming
FLORIDA			
Manatee Energy Co.—Palmetto	28,400	....	....
Seminole Refining Inc.— St. Marks	13,000	....	....
Total	**41,400**	....	....
GEORGIA			
Amoco Oil Co.—Savannah	24,000	....	....
Young Refining Corp.— Douglasville	NR	....	....
Total	**28,750**	....	....
HAWAII			
Chevron U.S.A. Inc.— Barber's Point	48,000	[1]22,000	....
Hawaiian Independent Refinery Inc.—Ewa Beach	67,900	....	[2]12,000
Total	**115,900**	**22,000**	**12,000**
ILLINOIS			
Amoco Oil Co.—Wood River	104,000	[1]38,000	[4]14,000
Bi-Petro Refining Cl– Pana	8,000	....	....
Clark Oil & Refining Corp.— Blue Island	66,500	[1]25,000	[2]30,500
Hartford	61,750	[1]27,000	[2]12,000
Marathon Oil Co.—Robinson	195,000	[1]38,000	[1]12,400 [4]35,000
Mobil Oil Corp.—Joliet	180,000	[1]98,000	[2]47,000
Shell Oil Co.—Wood River	283,000	[1]94,000	[2]22,000 [3]68,000
Texaco Inc.—Lawrenceville	84,000	34,000	24,000
Lockport	72,000	30,000	19,000
Union Oil Co. of California— Lemont	151,000	[1]58,000	[2]31,000
Wineback Oil Cl–Plymouth	1,800	....	....
Total	**1,207,050**	**449,110**	**319,677**
INDIANA			
Amoco Oil Co.—Whiting	380,000	[1]140,000	91,000
Energy Cooperative Inc.— East Chicago	126,000	[1]48,000	[2]20,000
Gladieux Refinery Inc.– Ft. Wayne	15,800	....	....
Indiana Farm Bureau Cooperative Association Inc.— Mt. Vernon	NR	[1]7,000	[2]4,000
Industrial Fuel & Asphalt of Indiana Inc.—Hammond	9,400	....	....
Kentucky Oil & Refining Co.— Troy	1,107	....	....
Laketon	8,100	....	....
Rock Island Refining Corp.— Indianapolis	43,200	[1]17,000	[2]8,700
Total	**604,507**	**212,000**	**123,700**
KANSAS			
CRA Inc.—Coffeyville	56,500	[1]23,000	[2]9,600
• Phillipsburg	26,400	[1]8,500	[1]5,300
Derby Refining Co.—Wichita	27,980	[11]11,200	[2]6,500
E-Z Serve Refining Inc.— Shallowater	NR	[2]2,250	....
Getty Refining & Marketing Co.—El Dorado	80,577	[1]31,000	[2]25,000
Mid-America Refining Cl— Chanute	3,100	....	....
Mobil Oil Corp.—Augusta	50,000	[2]22,100	[1]10,500 [4]12,000
National Cooperative Refinery Association—McPherson	54,150	[1]20,000	[2]11,000
Pester Refining Co.—El Dorado	25,500	[1]13,000	[2]4,200
Phillips Petroleum Co.— Kansas City	80,000	[1]35,500	[2]21,000
Total Petroleum Inc.— Arkansas City	NR	[1]13,000	[1]16,300
Total	**458,832**	**177,550**	**121,400**
KENTUCKY			
Ashland Petroleum Co.— Catlettsburg	213,000	[1]60,000	[2]18,000 [6]27,000
Louisville	25,200	[1]10,000	[2]3,000
Kentucky Oil & Refining Cl— Betsy Layne	400	....	....
Somerset Refinery Inc.— Somerset	5,500	....	[2]1,000
Total	**244,100**	**70,000**	**49,000**
LOUISIANA			
Atlas Processing co., Division of Pennzoil— Shreveport	45,000	....	[1]5,000 [2]10,000
Bayou State Oil Corp.— Hosston	3,000	....	....
Calumet Refining Co.— Princeton	NR	....	....
Calcasieu Refining Co.— Lake Charles	14,000	....	....
Bruin Refining Inc.—St. James	19,300	....	....
Canal Refining Co.— Church Point	7,858	....	[1]1,600
Cities Service Co.—Lake Charles	291,000	[1]150,000	[2]46,000
Claiborne Gasoline Co.— Lizbon	6,500	....	[1]2,200
Conoco Inc.—Lake Charles	156,500	[1]30,600	[2]21,000
Cotton valley Solvents (Kerr-McGee Refining Corp.)— Cotton Valley	7,781	....	....
Evangeline Refining Cl— Jennings	NR	....	[3]600
Exxon Co.—Baton Rouge	500,000	[1]160,000	[4]100,000
Good Hope Refineries Inc.— Good Hope	86,000	[1]120,000	[2]5,000
Gulf Oil Corp.—Belle Chasse	195,900	[1]89,000	[2]40,000
Venice	28,700	....	[2]18,000
Hill Petroleum Co.—Krotz Springs	48,000	....	[2]12,000
International Processors— St. Rose	28,500	....	....
Kerr-McGee Corp.—Dubach	10,780	....	[1]3,480
LaJet Inc.—St. james	NR	....	....
Lake Charles Refining Co.— Lake Charles	NR	....	....
Mallard Resources Inc.— Gueydon	8,000	....	....
Marathon Oil Co.—Garyville	255,000	[1]75,000	[5]45,000
Mt. Airy Refinery Co.— Mt. Airy	NR	....	....
Murphy Oil Corp.—Meraux	92,500	[1]35,300	[6]23,000
Placid Refining Co.— Fort Allen	36,000	[1]16,500	[2]5,500
Port Petroleum Inc.—Stonewall	3,600	....	....
Shell Oil Co.—Norce	230,000	[1]100,000	[2]18,000 [3]28,000
Shepherd Oil Inc.—Mermentau	....	....	
Sooner Refining Cl—Egan	5,000	....	....
South Louisiana Production Cl— Mermentau	NR	....	....
T&S Refining Inc.–Jennings	11,000	....	....
Tenneco Oil Co.—Chalmette	NR	[1]22,500	[1]28,000
Texaco Inc.–Convent	140,000	70,000	30,000
Total	**2,449,274**	**876,677**	**461,713**
MARYLAND			
Amoco Oil Co.—Baltimore	15,000	....	....
Chevron U.S.A. Inc. Baltimore	14,200	....	....
Total	**29,200**	....	....
MICHIGAN			
Crystal Refining Co.— Carson City	4,000	....	....

REFINERY CAPACITY STATISTICS

Company and location	Crude capacity b/cd	..... Charge capacity b/sd	
		Cat cracking	Cat reforming
Lakeside Refining Co.—Kalamazoo	5,600	....	[1]2,000
Marathon Oil Co.—Detroit	68,500	[1]27,000	[2]17,000
Osceola Refining Co.—West Branch	12,000	....	[1]1,400
Total Petroleum Inc.–Alma	NR	[1]16,000	[1]14,000
Total	**130,000**	**43,000**	**34,400**
MINNESOTA			
Ashland Petroleum Co.—St. Paul Park	67,000	[1]23,000	[2]13,000
Conoco Inc.—Wrenshall	23,500	[1]9,500	[1]3,600
Koch Refining Co.—Rosemount	127,300	[1]53,000	[3]18,000
Total	**217,800**	**85,500**	**34,600**
MISSISSIPPI			
Amerada-Hess Corp.—Purvis	30,000	[2]16,200	5,400
Chevron U.S.A. Inc.—Pascagoula	280,000	[1]56,000	[2]90,000
Ergon Refining Inc.–Vicksburg	NR	....	....
Natches	NR	....	....
Southland Oil Co.—Lumberton	5,800	....	....
• Sandersville	11,000	....	....
Yazoo City	5,500	....	....
Vicksburg Refining Inc.-Vicksburg	5,500	....	....
Total	**371,525**	**72,200**	**95,400**
MISSOURI			
Amoco Oil Co.—Sugar Creek	104,000	[1]42,000	[3]16,000
Total	**104,000**	**42,000**	**16,000**
MONTANA			
Cenex—Laurel	40,400	[1]12,000	[2]12,000
Conoco Inc.—Billings	52,500	[1]15,000	[2]14,400
Exxon Co.—Billings	45,000	[1]21,000	[1]14,500
Kenco Refining Inc.—Wolf Point	4,700	....	....
Phillips Petroleum Co.—Great Falls	6,000	[1]2,100	[2]1,000
Westco Refining Co.—Cut Bank	5,300	....	[2]2,300
Total	**153,900**	**50,100**	**44,200**
NEBRASKA			
CRA Inc.—Scottsbluff	5,600	[1]2,400	[1]750
NEVADA			
Nevada Refining Co.—Tonopah	NR	....	....
Total	**4,275**	**....**	**....**
NEW HAMSHIRE			
ATC Petroleum Inc.—Newington	13,000	....	....
Total	**13,000**	**....**	**....**
NEW JERSEY			
Chevron U.S.A. Inc.—Perth Amboy	168,000	[3]33,000	....
Exxon Co.—Linden	270,000	[1]120,000	[3]17,000 [4]25,000
Mobil Oil Corp.—Paulsboro	106,600	[1]34,000	[2]23,500
Seaview Petroleum Inc.—West Deptford	NR	....	....
Texaco Inc.—Westville	90,000	40,000	13,000
Total	**679,250**	**231,444**	**79,944**
NEW MEXICO			
Caribou Four Corners Inc.—Kirtland	2,750	....	[1]1,500
Giant Industries Inc.—Farmington	13,500	....	[1]5,000
Navajo Refining Co.—Artesia	NR	[2]5,600	[1]1,700 [2]6,000
Plateau Inc.—Bloomfield	16,800	[1]5,400	[1]2,250
Shell Oil Co.—Ciniza	18,000	[1]7,200	[2]6,800
Southern Union Refining Co.—Lovington	NR	....	....
Thriftway Co.—Bloomfield	6,500	....	[2]2,500
Total	**114,388**	**18,200**	**25,750**
NEW YORK			
Ashland Petroleum Corp.—North Tonawanda	54,000	[1]23,000	[2]11,500
Cibro Petroleum Products Inc.—Albany	33,900	....	....
Mobil Oil Corp.—Buffalo	43,000	[2]19,000	[2]11,500
Total	**130,900**	**42,000**	**23,000**
NORTH CAROLINA			
ATC Petroleum Inc.—Wilmington	11,900	....	....
Total	**11,900**	**....**	**....**
NORTH DAKOTA			
Amoco Oil Co.—Mandan	56,000	[1]26,000	[4]10,000
Northland Oil & Refining Co.—Dickinson	5,200	....	....
Westland Oil Co.—Williston	4,658	....	[2]2,500
Total	**65,858**	**26,000**	**12,500**
OHIO			
Ashland Petroleum Co.—Canton	64,000	[1]25,000	[6]20,000
Findlay	NR	....	....
Gulf Oil Co.—Cleves	43,700	[1]18,000	[2]11,000
Toledo	50,300	[1]19,800	[2]11,000
Standard Oil Co. of Ohio—Lima	168,000	[1]37,700	[3]47,000
Toledo	120,000	[1]55,000	[3]40,700
Sun Cl—Toledo	125,000	[1]50,000	[2]41,000
Total	**590,950**	**205,500**	**170,700**
OKLAHOMA			
Allied Material Corp.—Stroud	NR	....	....
Champlin Petroleum Co.—Enid	53,800	[1]19,500	[2]15,000
Conoco Inc.—Ponca City	134,000	[1]45,000	[2]33,000
Hudson Refining Cl—Cushing	19,000	[1]7,500	[2]4,500
Kerr-McGee Refining Corp.—Wynnewood	48,630	[1]20,000	[2]8,500
OKC Refining Inc.—Okmulgee	24,000	[2]8,000	....
Oklahoma Refining Co.—Cyril	15,520	[1]30,000	[2]23,000
Sun Cl—Tulsa	88,500	[1]30,000	[2]23,000
Texaco Inc.—Tulsa	50,000	[1]18,000	20,000
Tonkawa Refining Co.—Arnett	12,600	....	....
Tosco—Duncan	52,000	[1]27,000	[2]8,000
Total Petroleum Inc.—Ardmore	62,000	[1]22,500	[5]12,000
Total	**567,270**	**206,700**	**127,222**
OREGON			
Chevron U.S.A. Inc.—Portland	15,000	....	....
Total	**15,000**	**....**	**....**
PENNSYLVANIA			
Atlantic Richfield Co.—Philadelphia	125,000	....	[2]60,000
BP Oil Corp.—Marcus Hook	164,000	[1]48,000	[6]50,000
Gulf Oil Co.—Philadelphia	206,300	[1]79,300	[2]56,000
Kendall-Amalie Division, Witco Chemical Co.—Bradford	9,000	....	[2]2,000
Pennzoil Co.—Rouseville	14,600	....	[2]3,600

Company and location	Crude capacity b/cd	..... Charge capacity b/sd ..... Cat cracking	Cat reforming
Quaker State Oil Refining Corp.—Farmers Valley	6,500	....	^{2}2,000
Sun CI—Marcus Hook	165,000	^{1}75,000	^{1}13,100
United Refining Co.—Warren	NR	^{1}14,000	^{2}15,000
Valvoline Oil Co., Division of Ashland Petroleum Co.—Freedom	6,800	....	....
Total	**738,050**	**216,300**	**232,900**
TENNESSEE			
Delia Refining Co.—Memphis	49,000	^{1}30,000	^{2}9,300
Total	**49,000**	**30,000**	**9,300**
TEXAS			
Adobe Refining Co.—La Blanca	5,000	....	....
American Petrofina Inc.—Big Spring	60,000	^{1}23,000	^{2}23,000
Port Arthur	90,000	^{1}34,000	^{1}20,000
Amoco Oil Co.—Texas City	415,000	^{1}194,000	^{3,4}134,000
Atlantic Richfield Co.—Houston	345,000	^{1}78,000	^{2}105,000
Carbonit Refining Inc.—Hearne	NR	....	....
Champlin Petroleum Co.—Corpus Christi	173,000	^{1}69,000	^{2}6,300 ^{5}25,000
Charter International Oil Co.—houston	NR	^{1}50,000	^{2}13,500
Chevron U.S.A. Inc.—El Paso	76,000	^{1}22,000	^{2}25,000
Coastal States Petroleum Co.—Corpus Christi	NR	^{1}20,000	^{1}14,000 ^{6}20,000
Clinton Mangas Oil & Refining Co.—Tucker	9,700	....	....
Copano Refining—Ingleside	NR	....	....
Crown Central Petroleum Corp.—houston	100,000	^{1}50,000	^{2}14,000 ^{6}22,000
Diamond Shamrock Corp.—Sunray	71,100	^{1}32,500	^{2}16,000
Dorchester Refining Co.—Mt. Pleasant	26,500	^{2}9,600	^{2}3,500
Dow Chemical Co.—Brazosport	190,000	....	....
Eddy Refining Co.—Housion	3,500	....	^{6}1,500
Erickson Refining Corp.—Port Neches	42,000	....	....
Exxon Co.—Baytone	640,000	^{1}170,000	^{3}84,000 ^{4}65,000
Flint Chemical Co.—San Antonio	1,200	....	....
Friendswood Refining Inc.—Houston	NR	....	....
Gulf Oil Co.—Port Arthur	333,400	^{1}110,000	^{2}109,500
Gulf States Oil & Refining Co.—Corpus Christi	NR	....	....
Howell Hydrocarbon Inc.—San Antonio	12,000	....	^{3}1,200
Independent Refining Corp.—Winnie	50,000	....	^{2}7,600
LaGloria Oil & Gas Co.—Tyler	65,000	^{1}16,400	^{2}7,000 ^{6}11,700
Liquid Energy Corp.—Bridgeport	10,000	....	....
Longview Refining Co., Division of Crystal Oil Co.—Lonview	9,200	....	....
● Marathon Oil Co.—Texas City	69,500	^{1}38,000	^{1}8,000
Mobil Oil Corp.—Beaumont	325,000	^{1}100,500 ^{2}18,000	^{2}102,000
Nueces Petrochemical Co.—Corpus Christi	33,600	....	....
Phillips Petroleum Co.—Borger	97,000	^{1}52,000	^{1}7,000 ^{2}19,000
Sweeny	218,000	^{1}87,000	^{2}36,000
Pioneer Refining Ltd.—nixon	17,100	....	....

Company and location	Crude capacity b/cd	. Charge capacity b/sd ..... Cat cracking	Cat reforming
● Placid Refining Co.—Mont Belview	12,400	....	....
Pride Refining Inc.—Abilene	NR	....	....
Quitman Refining Co.—Quitman	6,600	....	....
Saber Refining Co.—Corpus Christi	21,000	....	....
Sentry Refining Inc.—Corpus Christi	30,000	....	....
Shell Oil Co.—Deer Park	285,000	^{1}70,000	^{2}15,000 ^{3}40,000
Odessa	32,000	^{1}10,500	^{1}10,500
^{1}11,000			
Sigmor Refining co.—Three Rivers	30,000	....	^{2}7,000
South Hampton Refining Co.—Silsbee	20,000	....	^{1}4,000
Southwest Perorefining—Donna	4,200	....	....
Southwestern refining CI—Corpus Christi	120,000	^{1}28,000	^{2}30,000
Sun CI—Corpus Christi	57,000	^{1}25,000	^{1}13,000 ^{1}11,000
Tesoro Petroleum Corp.—Carrizo Springs	26,100	....	^{2}3,000
Texaco Inc.—Amarillo	20,000	8,000	5,000
El Paso	17,000	7,000	3,500
Port Arthur	365,000	135,000	^{2}60,000
Port Neches	47,000	....	....
Texas Armada Refining Co.—Ft. Worth	5,000	....	....
Texas City Refining Inc.—Texas City	119,600	^{1}40,000	^{2}11,000
Thriftway Co.—Graham	2,400	....	....
Tipperary Corp.—Ingleside	6,000	....	....
Unit Refining Inc.—Ingleside	NR	....	....
Vedette Oil Refining—Brownsville	20,000	....	....
Union Oil Co. of California—Beaumont	120,000	38,000	^{3}36,000
Winston Refining Co.—Fort Worth	20,000	^{1}3,400	^{1}1,700 ^{2}3,500
Total	**5,259,990**	**1,555,565**	**1,175,109**
UTAH			
Amoc , Oil Co.—Salt Lake City	39,000	^{1}18,000	^{4}6,000
Caribou Four Corners Inc.—Woods Cross	8,300	....	^{2}2,000
Chevron U.S.A.—Salt Lake City	45,000	^{1}11,000 ^{3}7,000	^{2}5,500
Husky Oil Co.—North Salt Lake City	25,000	^{2}4,4000	^{2}5,000
Morrison Petroleum Co.—Woods Cross	NR	....	....
Phillips Petroleum Co.—Woods Cross	24,000	^{2}8,400	^{2}4,700
Plateau Inc.—Roosevelt	8,000	^{1}5,200	....
Wesreco Inc.—Woods Cross	NR	....	....
Total	**163,930**	**54,000**	**23,200**
VIRGINIA			
Amoco Oil Co.—Yorktown	53,000	^{1}28,000	^{4}9,500
Total	**53,000**	**28,000**	**9,500**
WASHINGTON			
Atlantic Richfield Co.—Cherry Point, Ferndale	115,000	....	^{4}43,000
Chevron U.S.A. Inc.—Seattle	4,500	....	....
Mobile Oil Corp.—Ferndale	71,500	^{1}25,500	^{2}9,500 ^{4}12,000
Shell Oil Co.—Anacortes	91,000	^{1}36,000	^{3}20,000
Sound Refining Inc.—Tacoma	10,600	....	....
Texaco Inc.*—Anacortes	78,000	^{1}30,000	^{2}20,000

Company and location	Crude capacity b/cd	..... Charge capacity b/sd ..... Cat cracking	Cat reforming
U.S. Oil & Refining Co.—Tacoma	21,400	....	[2]6,000
Total	**392,000**	**94,833**	**112,722**

WEST VIRGINIA

Pennzoil Co., Elk Refining Division—Falling Rock	5,600	....	[2]2,000
Quaker State Oil Refining Corp.—Newell	11,700	....	[2]3,200
St. Marys	4,800	....	[2]1,200
Total	**22,100**	....	**6,400**

WISCONSIN

Murphy Oil Corp.—Superior	40,000	[1]9,700	[2]10,000

WYOMING

Amoco Oil Co.—Casper	48,000	[1]13,000	[4]5,800
C&H Refinery Inc.—Lusk	190	....	....
Glacier Park Co.—Osage	9,500	....	....
Husky Oil Co.—Cheyenne	28,800	[1]12,000	[1]1,000 [2]5,500
Coty	11,500	[1]4,000	[2]1,800
Little America Refining Co.—Casper	24,500	[1]12,500 [2]6,500	[2]6,100
Mountaineer Refining Cl—LaBarge	500	....	....
Sage Creek refining Cl—Cowley	1,000	....	....
Silver Eagle Oil Inc—LaBarge	2,000	....	....
Sinclair Oil Corp.—Sinclair	49,000	[1]17,700	[1]9,700
Southwestern Refining Co.—LaBarge	800	....	....
Texaco Inc.*—Casper	21,000	7,000	4,000
Wyoming Refining Co.—Newcastle	12,500	[2]4,000	[1]2,750
Total	**209,290**	**77,477**	**37,094**

CANADA

ALBERTA

Gulf Canada Ltd.—Calgary	8,700	....	....
Edmonton	80,000	[1]30,000	[1]5,400 [2]10,000
Husky Oil Operations Ltd.—Lloydminster	11,300	....	[1]1,000
Imperial Oil Ltd.—Edmonton	151,800	[1]47,100	[4]22,000
Shell Canada Ltd.*—Bowden	5,000	....	[6]2,500
Texaco Canada Ltd.*—Edmonton	29,000	[1]9,000	[2]5,000
Total	**285,800**	**87,100**	**46,732**

BRITISH COLUMBIA

Chevron Canada Ltd.—Burnaby	35,000	[1]8,400	[2]10,000
Gulf Canada Ltd.—Kamloops	9,300	[1]3,000	[2]1,800
Port Moody	37,200	[1]12,000	[2]9,500
Husky Oil Operations Ltd.—Prince George	9,400	[1]3,000	[1]1,400
Imperial Oil Ltd.—Ioco	40,700	[1]12,700	[1]6,500
Petro-Canada Exploration Inc.—Taylor	14,300	[1]5,200	[1]2,000

Company and location	Crude capacity b/cd	..... Charge capacity b/sd ..... Cat cracking	Cat reforming
Shell Canada Ltd.—Shellburn	22,000	6,000	2,7000
Total	**167,900**	**50,966**	**34,200**

MANITOBA

Shell Canada Ltd.*—St. Boniface	30,000	[1]7,500	8,200
Total	**30,000**	**8,333**	**9,111**

NEW BRUNSWICK

Irving Oil Ltd.—St. John	NR	[1]19,000	[2]38,500
Total	**237,500**	**19,000**	**38,500**

NEWFOUNDLAND

Ultramar Canada Inc.—Holyrood	13,000	....	[2]1,300
Total	**13,000**	....	**1,380**

NORTHWEST TERRITORIES

Imperial Oil Ltd.—Norman Wells	• 2,900	....	....

NOVA SCOTIA

Gulf Canada Ltd.—Point Tupper	81,000	....	[2]12,000
Imperial Oil Ltd.—Dartmouth	82,000	[1]24,000	[4]9,000
Texaco Canada Ltd.*—Halifax	20,000	[1]7,200	[2]3,600
Total	**183,000**	**32,000**	**25,000**

ONTARIO

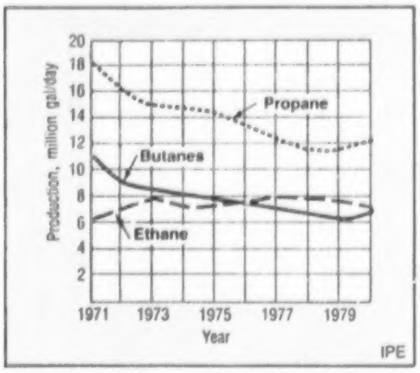
BP Refinery Canada Ltd.—Oakville	80,000	[1]24,000	[1]5,250 [2]12,000
Gulf Canada Ltd.—Clarkson	79,100	[1]18,000	[2]10,000 [6]10,000
Imperial Oil Ltd.—Sarnia	126,100	[1]26,000	[2]17,000 [4]14,000
Shell Canada Ltd.*—Oakville	44,000	14,000	7,000
Sarnia	74,000	16,000	[6]23,300
Sun Cl—Sarnia	90,000	[3]17,000	[1]5,500 [2]17,000
Texaco Canada Ltd.*—Nanticoke	95,000	[1]40,000	[2]24,000
Total	**588,200**	**181,957**	**151,081**

QUEBEC

BP Canada Inc.—Montreal	71,000	[1]20,000	[2]12,000
Gulf Canada Ltd—Montreal	77,300	[1]22,000	[2]10,000
Imperial Oil Ltd.—Montreal	75,900	[1]23,000	[4]11,500
Petrofina Canada Ltd.—Pointe-Aux-Trembles	92,000	[3]18,000	[2]20,000 [2]12,000
Shell Canada Ltd.*—Montreal East	120,000	[1]23,500	[6]23,000
Texaco Canada Ltd.*—Montreal	74,500	[1]26,500	[2]12,000
Ultramar Canada Inc.–St. Ronuald	100,000	....	[2]15,000
Total	**610,700**	**138,555**	**119,388**

SASKATCHEWAN

Consumers' Co-operative Refineries Ltd.—Regina	36,000	[1]14,000	[1]8,000
Gulf Oil Canada Ltd.—Moose Jaw	13,300	....	....
Total	**49,300**	**14,000**	**8,000**



U.S. key gas products 3

IPE

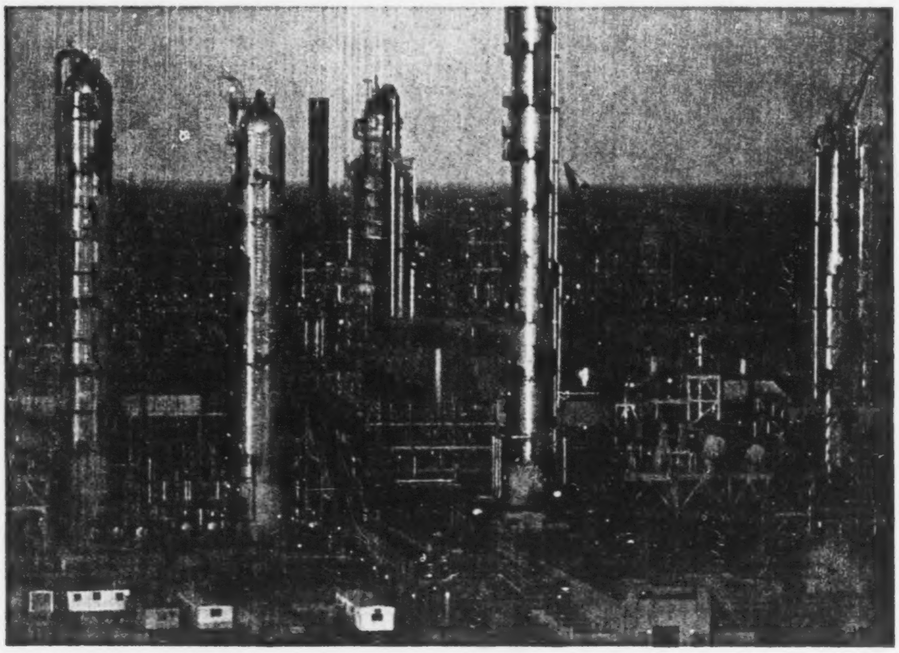
Area totals – Table 1

	1,000 metric tons/year		
Area	**1978**	**1979**	**1980**
NORTH AMERICA			
U.S.	13,680.47	14,796.51	17,192.48
Canada	1,249	1,254	1,792.5
Total	**14,929.47**	**16,050.51**	**18,984.98**
LATIN AMERICA			
Argentina	150	173	173
Bolivia	—	230	230
Brazil	718.3	742	802
Chile	60	60	60
Colombia	16	16	16
Mexico	445	445	435
Puerto Rico	904.5	759.5	759.5
Venezuela	200	230	150
Total	**2,493.8**	**2,575.5**	**2,625.5**
WESTERN EUROPE			
Austria	105	105	265
Belgium	520	520	520
Finland	165	165	165
France	2,220	2,390	2,645
West Germany	4,405	4,835	4,905
Greece	15	15	15
Italy	1,853	1,951	1,675
Netherlands	2,645	3,125	3,125
Norway	300	300	300
Spain	656	1,081	1,081
Sweden	350	350	340
Switzerland	—	30	30
U.K.	1,675	1,615	2,075
Total	**14,909**	**16,482**	**17,141**
ASIA/PACIFIC			
Australia	255	255	265
China (Taiwan)	514.5	690	690
India	214	230.3	215.3
Japan	5,579.5	6,092	6,067
Korea	155	155	155
Total	**6,718**	**7,422.3**	**7,392.3**
OTHERS			
Algeria	—	120	120
Iran	26	26	26
Israel	24	24	24
Qatar	280	280	280
South Africa	150	150	150
Turkey	55	55	55
Total	**535**	**655**	**655**
World Total	**39,585.27**	**43,185.31**	**46,798.78**

Worldwide olefins capacity – Table 2 (As of Jan. 1, 1981)

KEY TO FEEDSTOCK ABBREVIATIONS:	Ethane = E Propane = P	Refinery streams = R Naphtha = N	Light hydrocarbons = LH
	Butane = B	Gas oil = G	Light crude = LC LP-gas = LPG

Company	Location	Capacity 1,000 metric tons/yr	Feedstock	Company products	Capacity, 1,000 metric tons year
UNITED STATES					
ARCO Chemical Co.	Watson, Calif.	33	R	Propylene	11
	Channelview, Tex.	1,180	N, G	Propylene	740
				Butadiene	215
				Py Gas	465
				Aromatics	420
				Fuel oils	295
Amoco Chemicals Corp.	Chocolate Bayou, Tex.	967	E, P, B, N	Propylene	387
				Butadiene	91
				Py gas	332
				Aromatics	84
				Fuels	51
Borg-Warner Chemicals (with Allied Chemicals Corp. & BASF-Wyandotte)	Geismar, La.	340	E, P	Propylene	23
Chemplex Co.	Clinton, Iowa	227	E, P	Propylene	63.6
Cities Service Co.	Lake Charles, La.	400	E, P, B	Propylene	250
				C_4	29
				Py gas	50
Conoco Chemicals	Lake Charles, La.	302	E	Propylene	7.6
				Butadiene	14.5
				Aromatics	14.6
Corpus Christi Petrochemical Co	Corpus Christi, Tex.	545.5	N, G	Propylene	254.5
				C_4	181.8
				Benzene	195.5
Cosden Oil & Chem	Groves, Tex.	9	R	Propylene	30
Dow Chemical	Freeport	1,136	E, P, B, N	Propylene	250
				Butadiene	39
	Plaquemine, La	682	E, P, B, N	Propylene	75
Du Pont	Orange, Tex.	375	E, P	Propylene	
				C_4	
				Distillates	
Eastman Chemical	Longview, Tex.	580	E, P		
El Paso Products Co.	Odessa, Tex.	234.5	E, P, B	Propylene	77.3
				Butadiene	4.5
				Aromatics	6
Exxon Chemical U.S.A.	Baton Rouge, La.	816.5	E, P	Propylene	816.5
			N, G	Butadiene	145
				Aromatics	130
	Baytown, Tex.	589.7	N, G	Propylene	408
				Butadiene	113
B.F. Goodrich	Calvert City, Ky.	136	E, P	Propylene	90
Gulf Oil Chemical Co.	Port Arthur, Tex.	568	E, P, N	Propylene	200
	Cedar Bayou, Tex.	732	E, P, N, G	Propylene	350
Mobil Chemical Co	Beaumont, Tex.	410	LPG	Propylene	110
				Butadiene	35
				Aromatics	35
Monsanto Chemical	Alvin, Tex.	681.82	LC	Propylene	230
				Butadiene	60
	Texas City, Tex.	45	LC	Propylene	130
Northern Petrochemical	Morris, Ill.	400	E, P, B	Propylene	75
				C_4	30
				Aromatics	38
Olin Corp.	Brandenberg, Ky.	50	E, LPG	NA	
Phillips Petroleum	Sweeny, Tex.	970.5	LH	Propylene	162
Shell Chemical	Houston, Tex.	1,272.7	N, G, E	Propylene	863.6
			P, G	Butadiene	227.3
				Aromatics	130
				Py gas	620
				Fuels	384
	Norco, La.	636.4	E, N, G	Propylene	227
				Butadiene	36.3
				Py gas	229.5
Sun-Olin	Claymont, Del.	108.86	R	NA	
Texaco	Port Arthur, Tex.	453.5	E, P, B, N	Propylene	220.5
				Butadiene	69.5
				Py gas	233
				Fuels	41.5
	Port Neches, Tex.	240	E, P	Propylene	66
Union Carbide	Seadrift, Tex.	545.5	LPG	Propylene	45.5
				Butadiene	
				Aromatics	
	Taft, La.	500	LPG, N	Propylene	193
				Butadiene	
				Aromatics	
	Texas City, Tex	545.5	LPG, N	Propylene	136
				Butadiene	
				Aromatics	
	Torrance, Calif	72.7	LPG, R	NA	
U.S.I.	Tuscola, Ill.	180	E	NA	
USS Chemicals	Houston, Tex.	226.8	E, P, B	Propylene	48.5
				Butadiene	19.5
				Py gas	29.5
U.S. total		**17,192.48**			
ALGERIA					
Sonatrach	Skikda	120	L, H	NA	
ARGENTINA					
Duperial S.A.I.C.	San Lorenzo	15	N	Propylene Butadiene	6
				Py gas	6
				Fuel oils	5.5
PASA Petroquimia Arg	Pto. Gral. San Martin	23	P	NA	
Petroquimica Bahia Blanca	Bahia Blanca	120	E, P	Propylene	12
				Butenes	8.8
				Py gas	5
Ipako	Buenos Aires	15	NA	NA	
Argentine total ...		**173**			
AUSTRALIA					
Altona Petrchem. Co. Ltd.	Altona, Victoria	150	E, G	Propylene	45
				Butadiene	16
				Py gas	130
ICI Australia	Botany, NSW	100	N	Propylene	45
				Butadiene	10
				Py gas	55
				Fuel oils	10
Shell Chemical	Clyde, NSW	15	R		
Australia total		**265**			
AUSTRIA					
OMV A.G.	Schwechat	265	N	Propylene	155
BELGIUM					
Petrochem Phillips Pet.	Antwerp	520	N	Propylene	230
BOLIVIA					
Yacimientos Petroliferos Fiscales Bolivianos	La Paz	230	E, P	Propylene	56
				Py gas	22
BRAZIL					
Brasiliera de Estireno	Sao Paulo	4	EtOH		
Industrias Quimicas Eletro Cloro	Sao Paulo	10	EtOH		
Copene Petroquimica	Camarcari-Bahia	388	N, G	Propylene	200
				Butadiene	52
				Py gas	103
				Aromatics	177
				Fuel oils	181
Petroquimica Uniao S.A.	Capuava-Santo Andre	340	N	Propylene	190
				Py gas	300
				Butadiene	50
Salgema industrias Quimicas S.A.	Maceio-Alagoas	60	EtOH		
Brazil total		**802**			



CORPUS CHRISTI PETROCHEMICAL CO'S COMPLEX AT CORPUS CHRISTI, TEX., HAS A CAPACITY FOR 1.2 BILLION LB/YEAR OF ETHYLENE. THE $700 MILLION PROJECT, INVOLVING CHAMPLIN, ICI, AND SOLVAY, CAN ALSO MAKE 500 LB/YEAR OF PROPYLENE AND 60 MILLION GAL/YEAR OF BENZENE.

Company	Location	Capacity 1,000 metric tons/yr	Feedstock	Company products	Capacity, 1,000 metric tons year
CANADA					
Alberta Gas Ethylene	Joffre, Alta	545.5	E		
Dow Chemical	Sarnia, Ont	50	P, B, R	Propylene	NA
Gulf Oil Canada, Ltd	Varennes, Que	225	N	Propylene	NA
Imperial (Esso Chemical)	Sarnia, Ont	450	N	C_5 cut	NA
Petrosar Ltd	Coronna (Sarnia), Ont	454	N	Propylene Butadiene Py gas Aromatics Fuel oils	327 95 593 143 153
Union Carbide, Can	Montreal East	68	P, R	Propylene Butadiene Py gas Aromatics	60 2.3 1.9 6.4
Canada total		**1,792.5**			
CHILE					
Empresa Nacional Del Petr	Concepcion	60	N		
CHINA					
Chinese Petro Corp	Koahsiung	634	N	Propylene Butadiene Py gas Aromatics	288 80 210 255
China Pet Dev Corp	Touten	56	E	Fuel oils	100
China total		**690**			
COLOMBIA					
Empresa Colombiana de Petro	Barrancabermeja	16	E, R	Propylene	10
FINLAND					
Neste Oy	Porvoo	165	N	Py gas	180
FRANCE					
ATO Chimie	Gonfreville	320	N		
	Feyzin I	280	N		
	Feyzin II	200	N		
CdF Chimie	Carling St. Avoid	440	N, G	Propylene C_4 Py gas Aromatics Fuel oils	220 140 420 150 80
Cie Francaise de Raffinage	Gonfreville l'Orcher	60	N	Butadiene	10
Copenor	Dunkerque	225	N, G, LPG	Propylene C_4 Py gas Aromatics Fuel oils	110 75 70 80 50
Naphthachimie	Lavera	620	N	Propylene Butadiene Py gas	350 100 660
Shell Chimie	Barre	90	N	Propylene Butadiene Py gas	90 100 660
SNEA	Lacq	110	E, P, B		
UCEA	Feyzin see ATO Chimie				
Esso Chimie	Notre Dame de Gravenchon	300	N, R	Propylene Butadiene Py gas	220 70 310
France total		**2,645**			
GERMANY					
BSAF A G	Ludwigshafen	300			
Caltex Deutschland	Frankfort	320			
Deutsche Erdol	Heide	60	N		
Deutsche Marathon	Burghausen	225	E, P, N	Propylene C_4 cuts Benzene	115 80 110
Deutsche Texaco A G	Heide	80	N	Propylene C_4	520 28
Erdolchemie G m b H	Worringen, Cologne	740	N	Propylene Butadiene Py gas Aromatics	520 245 880 300
Erdolchemie G m b H	Dormagen	360		Propylene	250
Esso Chemie G m b H	Cologne	450	N	Propylene C_4	240 38
Rheinische Olefinwerke	Wesseling	1,050	N	Propylene Butadiene	500 175
Union Rheinische Braun-Kohlen Kraftsoff A G	Wesseling	520	N, A	Propylene C_4	300 180
Veba Chemie A G	Gelsenkirchen Buer	550	N	Propylene Py gas	330 470
Chemische Werke Huls	Munchmunster	200	N	Propylene	130
	Huls	50	LPG		
Germany total		**4,905**			
GREECE					
Esso Pappas Chemical A E	Thessaloniki	15	N		
INDIA					
Hindustan Polymers Ltd	Visakhapatnam	3.3	EtOH		
Indian Petrochem Corp	Baroda	130	N	Propylene Butadiene Benzene Py gas Fuel oils	78 18 24 110 16

Company	Location	Capacity 1,000 metric tons/yr	Feedstock	Company products	Capacity, 1,000 metric tons year
National Organic Chemicals Industries Ltd	Thana, Bombay	60	N	Propylene	35
				Butadiene	7.2
Union Carbide India	Bombay	22	N	Propylene	4.5
				Benzene	4
				Aromatics	2
				Fuel oils	6
India total		**215.3**			
IRAN					
Abadan Petrochemical	Abadan	26	R	Propylene	15
ISRAEL					
Israel Petrochemical Enterprises	Haifa	24	N, LPG		
ITALY					
ANIC	Gela	310	E, N	Propylene	160
				Butadiene	40
				Py gas	280
				Aromatics	150
				Fuel oils	55
Montedison S.p.A. DIPE	Mantova	60		Propylene	40
	Priolo	290		Propylene	150
				Butadiene	35
	Brindisi	130		Propylene	85
				Butadiene	110
	Porto Marghera	335		Propylene	175
	Ferrara	60			
Rumianca Sud	Assemini	75	N	Propylene	45
				C_4 cuts	25
				Py gas	75
S.I.R. Consorzio Industriale S.p.A.	Milano	365	N	Butadiene	51
				Aromatics	340
Solvay	Rosignano	50			
Italy total		**1,675**			
JAPAN					
Idemitsu Petrochem Co., Inc.	Tokuyama	362	N	Propylene	220
Maruzen Petrochem Co., Inc.	Chiba	549	N	Propylene	272
				Aromatics	269
Mitsubishi Chemical Industries	Mizushima	534	N, LPG	Propylene	350
Mitsubishi Petrochemical Co., Inc.	Kashima	300	N		
	Yokkaichi	420	N		
Mitsui Petrochemical Inds.	Chiba	135	N		
	Iwakuni-Ohtake	165	N		
Mizushima Ethylene	Mizushima	360	N, LPG	Propylene	216
				Py gas	250
				Fuel oils	50
Nippon Petrochemicals	Kawasaki	237	N		
Osaka Petrochemicals Inds.	Osaka	300	N	Propylene	200
				Butadiene	50
				Py gas	300
				Fuel oils	50
Sanyo Ethylene Co.	Mizushima	300	N		
Shin Daikyowa Petrochemical Co.	Yokkaichi	300	N	Propylene	180
Showa, Denko K.K.	Oita	540	N, LPG	Propylene	270
				Py gas	220
Sumitomo Chem. Co. Ltd.	Chiba	430	N	Propylene	327
	Nihama	140	N	Propylene	400
Tonen Petrochemical Co. Ltd.	Kawasaki	505	N	Propylene	400
				Butadiene	105
Ukishima Petrochem Co. Ltd.	Kawasaki	700	N		
Japan total		**6,067**			
KOREA					
Korea Oil Corp.	Ulsan	155	N	Propylene	81
				Butadiene	24
				Py gas	138
				Aromatics	75
				Fuel oils	21
MEXICO					
Petroleos Mexicanos	Pajaritos	209	E		
	Posa Rica	182	R		
	Reynosa	27	LH		
	Cuidad Madero	14	R		
	Minatitlan	3	R		
Mexico total		**435**			
NETHERLANDS					
Dow Chemical Europe	Terneuzen	960	N	Propylene	450
				Benzene	600
				Butadiene	150
	Beek	400	N	Propylene	230
				Benzene	130
				Butadiene	140
DSM	Limburg	800	N, G	Propylene	450
				Butadiene	80
Gulf Oil Chemicals	Europort	300	N	Propylene	160
Shell Nederland Chemie BV	Moerdijk	500	N, G	Propylene	300
				Butadiene	100
				Py gas	400
				Fuel oils	450
	Pernis	135	N, G	Propylene	75
				Butadiene	12.5
				Py gas	50
				Aromatics	7.5
				Fuel oils	15
Netherlands total		**3,125**			
NORWAY					
I/S Noretyl	Rafnes	300	E, P, B	Propylene	0
				Py gas	30
PUERTO RICO					
Puerto Rico Olefins Co.	Penuelas	305	N, G	Propylene	182
				C_4	105
				Py gas	209
Union Carbide Caribe, Inc.	Ponce	454.5	N	Propylene	227
Puerto Rico total		**759.5**			
QATAR					
Qatar Petrochemical	Umm Said	280	E		
SOUTH AFRICA					
So. Africa Coal, Oil & Gas Co.	Sasolburg	150	Syn. gas	Propylene	120
				Butadiene	27
				Aromatics	20
SPAIN					
Enpetrol	Puertollano	260	N, G	Propylene	130
				Butadiene	35
				Py gas	204
				Fuel oils	56
	Tarragona	750	N	Propylene	260
				Butadiene	100
				Py gas	600
				Fuel oils	150
Industrias Quimicas Asociadas S.A.	Tarragona	71	N	Propylene	36
				Butadiene	7.5
				Aromatics	40
Spain total		**1,081**			
SWEDEN					
Esso Chemical A/B	Stenungsund	340	N	Propylene	170
				C_4 cut	100
				Py gas	170
				Fuel oils	70
SWITZERLAND					
Lonza, A.G.	Visp	30	N, LPG	Acetylene	15
TURKEY					
Petkim Petrokimya A.S.	Ankara	55	N	Propylene	39.6
				Butadiene	32
				Aromatics	26
				Py gas	58
				Fuel oils	8
UNITED KINGDOM					
BP Chemicals	Bagian Bay	340	N	Propylene	200
				Butadiene	60
	Grangemouth	250	N	Propylene	180
				Butadiene	48
BP/ICI	Wilton	500	N	Propylene	250
				Butadiene	90
Esso Chemical Ltd.	Fawley	105	N, G	Propylene	100
				Butadiene	80
Imperial Chemical	Wilton	650	N	Propylene	300
				Butadiene	80
Shell Chemicals U.K. Ltd.	Carrington	230	N	Propylene	140
				Butadiene	30
U.K. total		**2,975**			
VENEZUELA					
Pequiven	El Tablazo	150	E, P	Propylene	94
WORLD TOTAL (June 30, 1980) .		**46,798.78**			

Non-Communist pipeline construction in 1981

Area	4-10 in.	12-20 in.	22-30 in.	Larger than 30 in.	Total
			Miles		
GAS PIPELINES					
U.S.	3,911	2,168	1,883	3,024	10,986
Canada	751	239	—	1,071	2,061
Latin America	658	318	770	342	2,088
Asia-Pacific	61	478	707	322	1,568
Western Europe	29	169	881	416	1,495
Middle East	25	—	—	—	25
Africa	—	—	—	1,110	1,110
Total gas	**5,435**	**3,372**	**4,241**	**6,285**	**19,333**
CRUDE PIPELINES					
U.S.	475	243	226	497	1,441
Canada	167	174	—	—	341
Latin America	125	185	114	153	577
Asia-Pacific	—	369	55	—	424
Western Europe	38	50	221	—	309
Middle East	—	153	75	747	975
Africa	97	21	62	54	234
Total crude	**902**	**1,195**	**753**	**1,451**	**4,301**
PRODUCT PIPELINES					
U.S.	1,832	361	107	891	3,191
Canada	200	82	—	—	282
Latin America	472	365	—	—	837
Asia-Pacific	535	388	—	—	923
Western Europe	70	—	—	—	70
Middle East	46	172	836	—	1,054
Africa	—	—	317	—	317
Total product	**3,155**	**1,368**	**1,260**	**891**	**6,674**
NON-COMMUNIST WORLD TOTALS					
Gas	5,435	3,372	4,241	6,285	19,333
Crude	902	1,195	753	1,451	4,301
Product	3,155	1,368	1,260	891	6,674
Total	**9,492**	**5,935**	**6,254**	**8,627**	**30,308**

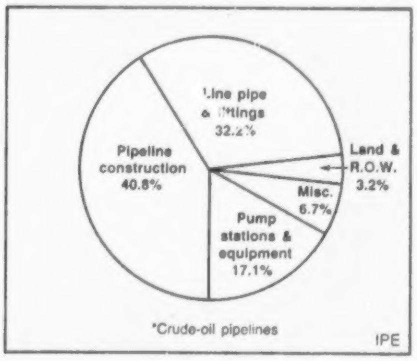
Non-Communist pipeline construction—1981 and beyond*

Area	4-10 in.	12-20 in.	22-30 in.	Larger than 30 in.	Total
	Miles				
GAS PIPELINES					
U.S.	3,956	2,627	3,077	6,877	16,537
Canada	751	272	1,140	6,652	8,815
Latin America	658	633	2,246	342	3,879
Asia-Pacific	78	801	1,828	322	3,029
Western Europe	29	493	1,047	1,269	2,838
Middle East	25	—	—	—	25
Africa	—	—	—	1,110	1,110
Total gas	**5,497**	**4,826**	**9,338**	**16,572**	**36,233**
CRUDE PIPELINES					
U.S.	475	243	926	1,617	3,261
Canada	332	339	—	—	671
Latin America	125	506	171	303	1,105
Asia-Pacific	—	372	55	—	427
Western Europe	38	50	221	—	309
Middle East	—	153	75	747	975
Africa	97	31	489	54	671
Total crude	**1,067**	**1,694**	**1,937**	**2,721**	**7,419**
PRODUCT PIPELINES					
U.S.	1,832	1,057	123	891	3,903
Canada	200	82	—	—	282
Latin America	472	365	—	—	837
Asia-Pacific	535	751	—	—	1,286
Western Europe	70	—	—	—	70
Middle East	46	172	836	—	1,054
Africa	—	—	317	—	317
Total product	**3,155**	**2,427**	**1,276**	**891**	**7,749**
NON-COMMUNIST WORLD TOTALS					
Gas	5,497	4,826	9,338	16,572	36,233
Crude	1,067	1,694	1,937	2,721	7,419
Product	3,155	2,427	1,276	891	7,749
Total	**9,719**	**8,947**	**12,551**	**20,184**	**51,401**

*Projects planned and under way.

Investment split*

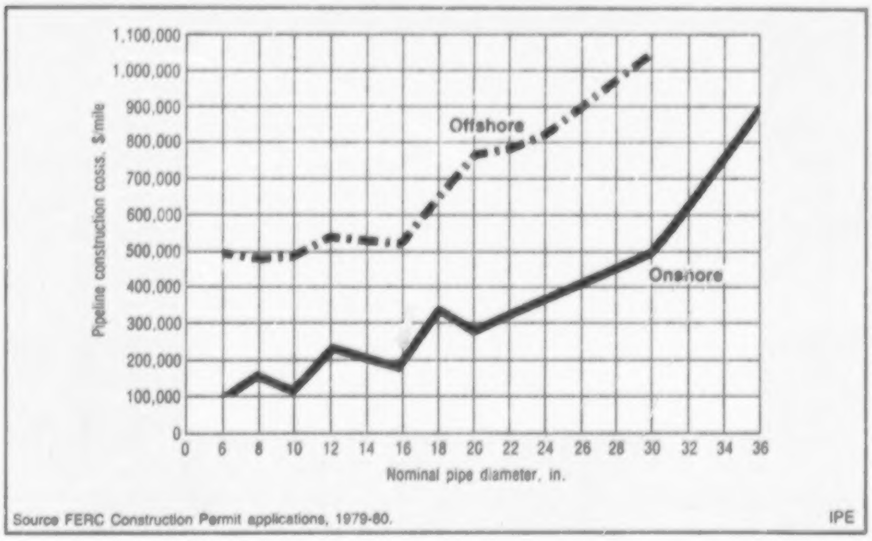
1



*Crude-oil pipelines

Average pipeline construction costs

2



Source FERC Construction Permit applications, 1979-80.

IPE

Investment in liquids pipelines

Table 1

CRUDE PIPELINES INVESTMENT BY FIVE COMPANIES

Item	Company and investment, $ A	B	C	D	E	Total, $	Percent
Land	1,475,784	882,889	308,224	729,074	923,669	4,319,640	0.3
Right of way	12,058,479	1,249,178	316,778	13,448,630	12,939,747	40,012,812	2.9
Line pipe	130,171,278	31,428,240	12,827,295	82,849,104	139,992,036	397,267,953	29.2
Line pipe fittings	6,352,682	1,957,716	1,872,127	13,692,122	17,530,200	41,404,847	3.0
Pipeline construction	176,921,804	33,411,347	17,153,878	160,812,379	165,304,497	553,603,905	40.8
Buildings	12,069,432	5 142,639	2,465,082	8,873,737	6,196,267	34,747,157	2.6
Boilers		....	....	....	....	....	...
Pumping equipment	20,846,606	6,773,288	2,582,712	13,925,002	40,915,864	85,043,472	6.3
Machine tools and machinery		....	....	33,140	..	33,140	...
Other station equipment	58,209,317	14,768,248	3,824,366	18,773,624	15,845,201	111,420,756	8.2
Oil tanks	13,218,187	8,529,760	5,663,872	15,810,928	17,278,072	60,500,819	4.4
Delivery facilities		1,886,464	5,162,054	2,490,104	1,110,949	10,649,601	0.8
Communication systems		2,152,829	4,905	7,703,470	1,101,501	10,962,705	0.8
Office furniture & equipment	206,726	153,547	140,654	315,560	353,186	1,169,673	0.1
Vehicles & other work equip.	3,790,774	1,201,465	339,819	3,317,072	98,808	8,747,938	0.6
Other property	...	....	....		49,795	49,795	...
Total	**435,321,069**	**109,537,610**	**52,661,166**	**342,773,946**	**419,639,792**	**1,359,933,583**	**100.0**

PRODUCT PIPELINES INVESTMENT BY FIVE COMPANIES

Item	A	B	C	D	E	Total, $	Percent
Land	4,059,156	1,674,016	482,382	797,360	2,448,176	9,461,090	0.4
Right of way	22,936,432	10,540,060	9,871,061	8,104,644	6,718,794	58,170,991	2.5
Line pipe	307,855,844	66,984,258	63,743,261	85,014,909	106,873,996	630,472,268	27.6
Line pipe fittings	55,564,761	10,935,814	8,334,469	1,560,137	13,367,400	89,762,581	3.9
Pipeline construction	468,610,022	104,381,768	101,955,970	91,785,050	143,644,902	910,377,712	39.9
Buildings	16,213,723	3,685,300	2,614,617	9,499,263	14,529,113	46,542,016	2.0
Boilers	....	....	....	....	....	....	...
Pumping equipment	27,508,319	4,028,833	11,202,474	27,255,894	21,175,324	91,170,844	4.0
Machine tools & machinery	....	....	....	....	213,311	213,311	..
Other station equipment	78,024,580	18,119,649	21,327,021	21,999,313	54,827,342	194,297,905	8.5
Oil tanks	43,775,758	15,088,364	12,475,587	16,198,129	32,753,155	120,290,993	5.3
Delivery facilities	...	....	9,705,059	10,521,670	30,509,963	50,736,692	2.2
Communication systems	506,340	215,568	501,517	7,031,732	....	8,255,157	0.4
Office furniture & equipment	6,241,205	1,133,954	560,042	402,621	349,147	8,686,969	0.4
Vehicles & other work equip.	2,581,192	1,130,033	3,301,381	1,266,895	660,220	8,939,721	0.4
Other property	45,599,230	....	10,805,242	....	....	36,404,472	2.5
Total	**1,079,476,562**	**237,917,617**	**256,880,083**	**281,437,617**	**428,070,843**	**2,283,782,722**	**100.0**

Table 2

10-year onshore construction-cost trend

Size	Fiscal year*	Average cost, $/mile					Range, $/mile	
		R.O.W.	Material	Labor	Misc.	Total	Low	High
8-in.	1980	6,614	59,068	52,243	17,432	135,358	55,625	193,000
	1979	2,286	38,918	104,082	9,000	154,286	(†)	(†)
	1978	1,590	32,123	30,554	8,660	72,927	61,614	109,956
	1977	1,403	34,423	27,002	8,963	71,791	28,844	126,063
	1976	....	....	....	....	....	....	....
	1975	2,561	11,948	29,915	8,732	53,155	37,898	75,896
	1974	1,504	11,785	19,242	1,599	34,130	(†)	(†)
	1973	1	16,360	13,500	1,240	31,100	(†)	(†)
	1972	550	10,310	12,475	7,500	30,835	(†)	(†)
	1971	570	8,500	7,100	1,600	17,770	17,600	18,000
12-in.	1980	13,785	70,967	92,268	29,336	221,356	166,582	199,734
	1979	5,480	47,627	59,878	22,991	135,976	127,679	136,773
	1978	6,697	55,362	61,919	13,830	137,808	(†)	(†)
	1977	4,332	34,429	22,658	4,573	65,992	53,839	177,694
	1976	....	....	....	....	....	....	....
	1975	2,135	20,908	24,401	3,396	50,841	44,909	52,249
	1974	2,400	18,570	28,385	2,725	52,080	(†)	(†)
	1973	7,080	17,100	30,000	7,240	61,380	27,230	97,990
	1972	1,700	16,250	15,365	2,820	36,135	26,385	59,300
	1971	2,500	18,500	21,150	3,100	45,250	38,000	47,100
16-in.	1980	9,446	88,864	46,582	28,274	173,166	147,200	197,895
	1979	6,829	90,454	134,754	28,174	260,712	150,135	311,435
	1978	7,506	54,936	54,117	12,552	129,111	86,898	203,721
	1977	3,635	50,574	32,260	9,347	95,817	68,897	145,916
	1976	3,248	80,373	26,575	9,419	119,515	(†)	(†)
	1975	1,512	29,290	19,629	4,367	54,798	45,001	121,922
	1974	2,251	22,464	32,020	10,135	66,870	45,040	112,613
	1973	2,040	23,050	16,600	1,700	43,390	37,400	52,100
	1972	1,950	23,850	16,050	2,060	43,910	38,570	88,280
	1971	2,700	23,000	26,700	4,000	56,400	38,000	105,000
20-in.	1980	5,544	145,901	106,355	26,726	284,526	240,776	333,957
	1979	4,145	124,565	90,988	33,751	253,449	182,000	318,057
	1978	3,235	101,052	83,810	12,346	200,443	153,959	242,685
	1977	5,415	95,045	85,842	16,044	202,346	110,349	312,337
	1976	....	....	....	....	....	....	....
	1975	7,258	53,951	37,251	18,134	116,593	101,674	155,982
	1974	6,356	49,152	98,168	14,712	163,388	118,231	219,835
	1973	3,600	36,100	48,150	4,100	91,950	88,170	100,550
	1972	8,300	42,570	36,230	10,230	97,390	96,450	99,640
	1971	3,450	44,300	43,000	6,500	97,250	50,150	137,500
24-in.	1980	10,052	166,119	122,060	28,046	353,706	196,409	678,322
	1979	17,032	242,648	181,310	88,223	529,213	264,463	725,744
	1978	2,372	112,790	125,435	17,045	257,642	239,480	371,932
	1977	....	....	....	....	....	....	....
	1976	4,784	95,656	94,319	29,755	224,514†	(†)	(†)
	1975	4,306	75,126	38,115	18,189	135,736	130,939	139,833
	1974	3,944	53,295	29,764	13,047	100,794	89,495	148,841
	1973	1,450	53,550	37,450	10,050	102,500	(†)	(†)
	1972	9,200	55,320	70,780	18,810	141,110	127,270	256,930
	1971	7,200	60,250	51,900	10,800	130,150	94,050	170,900
30-in.	1980	7,224	300,949	130,864	62,858	301,895	393,000	862,685
	1979	....	....	....	....	....	....	....
	1978	12,231	187,718	216,264	20,895	437,108	(†)	(†)
	1977	6,485	147,814	91,862	22,469	268,630	266,513	270,684
	1976	22,456	112,497	96,141	19,750	250,844	168,029	471,679
	1975	17,267	92,819	123,824	19,981	261,730	179,445	414,866
	1974	9,766	98,123	64,677	21,706	194,289	120,270	281,075
	1973	11,240	101,380	93,650	19,350	225,600	166,490	522,000
	1972	1,350	91,130	59,930	11,620	164,030	135,700	200,015
	1971	4,950	98,150	63,050	12,850	179,000	136,200	425,000
36-in.	1980	30,928	423,687	298,684	163,546	916,845	687,144	1,221,463
	1979	28,824	300,918	303,449	57,910	691,101	498,775	914,616
	1978	26,441	199,878	150,667	65,439	442,425	(†)	(†)
	1977	20,101	209,878	115,498	18,366	363,843	(†)	(†)
	1976	....	....	....	....	....	....	....
	1975	12,567	118,579	94,095	10,929	236,170	194,960	355,962
	1974	7,350	121,715	79,025	24,551	232,641	204,841	288,668
	1973	9,400	116,400	79,700	9,700	215,250	192,000	245,870
	1972	5,360	114,965	140,000	15,840	276,165	189,215	476,665
	1971	7,700	119,000	76,050	12,750	215,500	162,700	357,600

*1971-1978 based on completed costs reported to FERC by fiscal years; 1979-1980 based on FERC Construction Permit applications.
†One report only.

Current pipeline costs

Table 3

Size, in.	Location	Miles	Material ($)	Labor ($)	Misc. ($)	R.O.W. & damages ($)	Total ($)	$/mile
ONSHORE PIPELINES								
4	Wyoming	1.70	80,000	37,000	29,000	6,000	152,000	89,412
4	Wyoming	4.00	455,000	124,000	69,000	15,000	663,000	165,750
4	Iowa*	4.24	92,500	88,800	27,260	25,440	234,000	55,189
4	Iowa*	4.40	99,100	153,200	34,300	26,400	313,000	71,136
4	Wyoming	9.00	1,023,000	279.000	155,000	34,000	1,491,000	165,667
4	Iowa*	11.28	242,200	291,800	69,320	67,680	671,000	59,486
6	Nebraska*	3.27	119,000	147,000	35.970	29,430	311,400	101,223
6	Wisconsin*	11.77	714,170	471,200	82,130	52,000	1,319,000	112,107
6	Minnesota	14.66*	450 000	716.000	71.500	100.000	1,337,500	91,235
8	Texas	4.80	130,000	64.000	42,000	31,000	267,000	55,625
8	Louisiana	7.84	397,810	844,910	202,610	67,740	1,513,130	193,000
8	Texas	8.70	280 033	428,355	266,078	72,634	1,047,100	120,365
8	Wisconsin*	15.15	1,347,550	569.100	125,350	70,000	2,112,000	139,405
10	Wyoming/Colo.	3.56	258.000	127,000	79,000	13,000	477,000	133.989
10	Wyoming/Colo.	4.73	309,000	169 000	101,000	17,000	596,000	126,004
10	Oklahoma	9.50	518,000	63,000	180,000	61,000	822,000	86,526
12	Massachusetts	3.00	334.000	644,000	101,000	72,000	1,159,000	336,333
12	Massachusetts	8.00	796,000	1,411.000	260,000	142,000	2,609,000	326,125
12	Louisiana	13.33	1,304,110	2,902,990	628 310	195,590	5,031,000	377,419
12	Nevada*	15.05	1,301,000	1,339,000	361.000	5,000	3,006,000	199,734
12	Texas*	20.20	1,370,440	922,790	764,050	307,690	3,364,970	166,582
12	Georgia*	44.70	3,294,900	2,923,400	944.800	715,200	7,878,300	176,248
16	Colorado	20.00	1,647,000	763.000	310,000	224,000	2,944,000	147,200
16	Texas*	21.00	1,996,444	1,146,846	849,230	163,280	4,155,800	197,895
18	Georgia	20.74	2,956,600	2,278,300	659 400	896,000	6,790,300	328,034
20	Oklahoma*	10.80	1,564,201	879,449	719,520	164,510	3,327,680	308,119
20	Kansas*	18.10	2,401,430	1,456,250	1,150,130	275,700	5,283,510	291,907
20	Wyoming/Colo.	24.80	3,584 000	1,463,000	831,000	93,000	5,971,000	240,776
20	Georgia*	31.25	4,273.300	2,548,900	842,200	400,000	8,064,400	258,474
20	Nevada*	60.92	8,839,000	8,991,000	2,493,000	15.000	20,338,000	333,957
20	Utah	128.50	19,369,000	13,841.000	1,297,000	573,000	35,283,000	274,576
24	Texas/La.	14.29	3,771,863	3,859,285	1,792,948	275,904	9,700,000	678,322
24	Texas	35.35	9,422,065	6,370,265	3,722,470	1,355,200	20.870,000	589,580
24	Wyoming*	51.80	7,468,000	2,291.000	226,000	189,000	10,174,000	196,409
24	Wyoming/Utah	143.60	26,765.000	17,389,000	1,131,000	643,000	45,928,000	319,833
30	New York*	4.00*	1,170,000	1,428.000	426,000	106,000	3,130,000	782,500
30	New York*	5.00	1,418.000	1,581,500	490.500	132,000	3,622,000	724,400
30	New York*	7.00	1,983,000	2,146,000	666,000	185,000	4,980,000	711,428
30	Louisiana*	7.30	2,529,911	2,582,719	851,250	333,720	6,297,600	862,685
30	Louisiana*	15.30	3,036.307	3,793,483	1,517,540	419,640	8,766,970	573,005
30	Louisiana	42.60	13,291.922	8,403,556	5,647,398	436,224	27,779,100	652,092
30	Oklahoma/Tex.	47.98	10,910,800	5,866.500	1,510,900	575,800	18,864,000	393,000
30	Utah/Nev.	422.70	107.507,000	55 671,000	4,479,000	1,915,000	169,572,000	401,164
30	Texas/Okla./La.	635.00	215,078,374	73,732,500	58,960,826	4,464,000	352,235,700	554,702
36	Louisiana*	2.40	806,024	955,356	583,900	54.860	2,400,140	1,000,058
36	Louisiana*	6.60	1,747,517	1,763,123	873,650	150,860	4,535,150	687,144
36	Louisiana*	11.00	2,994.874	2,876,136	1,411,470	335,240	7,617,720	692,520
36	Louisiana*	13.67	4,528,866	3,354,349	1,779,185	437,600	10,100 000	737,226
36	Louisiana*	20.53	12,886,561	7,239,729	4,215,976	697,734	25,040,000	1,221,463
OFFSHORE PIPELINES								
4	Texas	4.30	110,000	324,000	70,000	5,000	509,000	118,372
6	Louisiana	1.80	143,455	418.168	74,371	4,025	640,019	355,566
6	Louisiana	5.50	857,390	1,510,440	580,920	1,250	2,950 000	536,364
8	Louisiana	2.00	358.410	1,166,695	353,665	1,230	1,880,000	940,000
8	Louisiana	4.00	320,086	783,044	618,570	....	1,721,700	430,425
8	Louisiana	5.85	421,700	1,311,928	233,810	12,992	1,980,430	338,535
8	Louisiana	6.40	552,400	1,910.800	791,300	1,500	3,256,000	508,750
10	Louisiana	2.30	371.964	1,455,626	449,250	....	2,327,110	1,011,787
10	Texas	8.00	1,288.000	2,160,000	238,700	500	3,687,200	460,900
10	Texas	13.80	1,700,000	3,060,000	1,051,000	....	5,811,000	421,086
12	Texas	2.32	695,510	1,757,110	566,150	1,230	3,020.000	1,313,043
12	Texas	2.87	485,620	1,140,390	278,590	400	1,905,000	663,763
12	Texas	3.31	585,312	1,804,720	531,268	600	2,921,900	855,424
12	Louisiana	10.10	1,022,443	2,820,167	1,180,670	....	5,023,280	497,354
12	Texas	26.69	3,547,977	5,600,125	2,411,393	505	11,560,000	432,959
16	Texas	2.09	460,435	526,210	292,125	1,203	1,280,000	612,440
16	Texas	2.30	477,700	666,050	325,020	1,230	1,470,000	639,130
16	Louisiana	3.70	672,932	1,887,054	462,569	800	3,023,382	817,049
16	Texas	5.93	1,148.405	1,211,345	649,000	1,250	3,010,000	507,589
16	Louisiana	9.30	2,000,000	4,100.000	1,415,000	....	7,515,000	808,065
16	Louisiana	14.50	2,810,000	1,870,000	1,110,000	....	5,790,000	399,310
16	Louisiana	17.80	3,357,000	4,832,000	576,000	284,700	9,049,700	508,410
16	Texas	25.62	2,640,000	7,278,000	1,526,000	....	11,444,000	446,682
20	Texas	3.62	1,739,490	2,818,665	981,845	1,250	5.540.000	1,530,387
20	Louisiana	15.82	3,456,600	3,774,300	1,777,100	2,000	9,010,000	569,532
20	Texas	18.90	5,776,975	6,309,510	2,892,000	1,300	14,980,000	792,593
24	Louisiana	19.80	5,211,554	7,274,266	2,797,270	....	15,283,090	771,873
24	Louisiana	24.30	7,188,108	11,126,312	3,905,730	....	22,220,150	914,409
24	Texas	31.00	11,656,581	8,049,619	4,616,300	337,500	24,660,000	795,484
30	Louisiana	29.90	15,477,100	13,812,100	2,765,800	2,000	32,057,000	1,072,140

*Loop.

Source: FERC Consruction Permit applications, 1979-1980.

Current compressor station costs

Table 4

Location	Horsepower	$					$/hp
		Equipment & material	Labor	Land	Misc.	Total	
ONSHORE							
Oklahoma*	600	400,000	50,000	...	67,000	517,000	862
Kansas	700	655,000	200,000		130,000	985,000	1,407
Ohio	720	476,000	105,000	3,000	109,600	693,000	963
Texas	750	912,500	84,000	25,000	113,289	1,134,789	1,513
Minnesota	1,000	519,500	456,300	5,000	299,200	1,280,000	1,280
Wyoming	1,000	1,308,000	571,000	100,000	10,000	1,989,000	1,989
Louisiana	1,100	524,000	196,000	....	300,400	1,020,400	928
Texas	1,200	999,000	140,000		140,000	1,279,000	1,066
Georgia	1,200	1,115,720	330,880	6,700	272,600	1,725,900	1,438
Oklahoma	1,200	736,500	320,000		415,930	1,472,430	1,227
Nevada	1,200	2,156,000	1,053,000	100,000	90,000	3,339,000	2,833
Oklahoma	1,400	1,015,000	215,000		140,000	1,370,000	979
Ohio	1,600	795,000	275,000	35,000	122,600	1,227,600	767
Georgia	1,800	995,400	304,700	10,000	239,100	1,549,000	861
South Dakota	2,000	786,700	700,700	5,900	406,700	1,900,000	950
Oklahoma	2,000	1,510,000	720,000	....	813,640	3,043,640	1,522
Texas	2,000	5,563,000	1,942,000	....	437,281	1,504,281	757
Michigan	2,200	1,353,000	597,000	40,000	445,900	2,435,900	1,107
Kentucky*	2,250	1,540,100	951,200	....	398,700	2,890,000	1,284
Louisiana*	2,250	1,870,000	1,158,700	9,600	508,400	3,547,000	1,576
Oklahoma	2,500	2,415,000	949,000	40,000	588,456	3,992,456	1,597
Wyoming	2,680	3,115,000	285,000	....	655,000	4,055,000	1,513
Utah	3,500	2,341,000	1,103,000	100,000	70,000	3,614,000	1,033
Georgia*	3,670	1,057,000	448,500	....	364,500	1,870,000	510
Louisiana*	3,695	1,016,000	394,500	....	319,500	1,730,000	468
Wyoming*	3,830	1,639,000	277,000	....	90,000	2,006,000	524
Oklahoma	4,000	3,065,000	1,118,000	40,000	661,342	4,884,342	1,221
Michigan	4,000	2,691,000	377,700	....	286,900	4,356,400	1,089
Michigan	4,500	1,561,900	1,407,000	22,000	764,100	3,755,000	834
Oklahoma	4,800	4,142,500	1,989,000	40,000	1,225,727	7,397,227	1,541
Oklahoma	7,200	5,517,500	2,028,000	40,000	1,396,612	8,982,112	1,248
Wyoming	8,000	4,760,000	1,665,000	....	1,293,319	7,718,319	965
Kansas	8,280	5,207,680	1,790,140	....	1,929,780	8,927,600	1,078
Kansas	8,500	2,801,000	807,000	....	492,000	4,100,000	482

*Addition.

Location	Horsepower	Equipment & material	Labor	Land	Misc.	Total	$/hp
OFFSHORE							
Louisiana	1,200	782,220	90,000	....	94.460	966,680	806
Louisiana	4,000	1,550,000	175,000	....	173,745	1,898,745	475
Louisiana	4,000	2,624,000	1,025,000		1,955,100	5,604,100	1,401
Louisiana	29,000	8,132,800	5,410,200	....	3,620,000	17,163,540	592

Source: FERC Construction Permit applications, 1979-1980.

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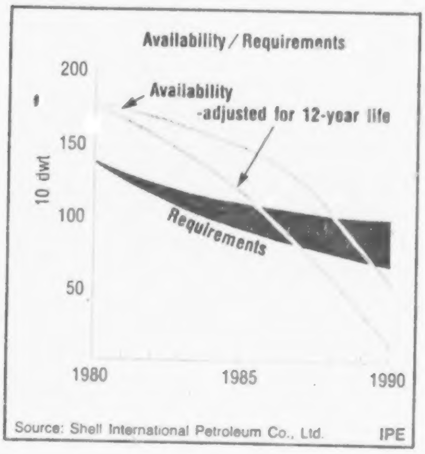
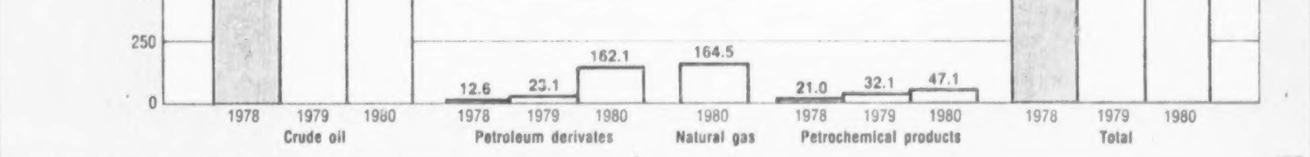


Source: Shell International Petroleum Co., Ltd.

IPE

Pemex exports



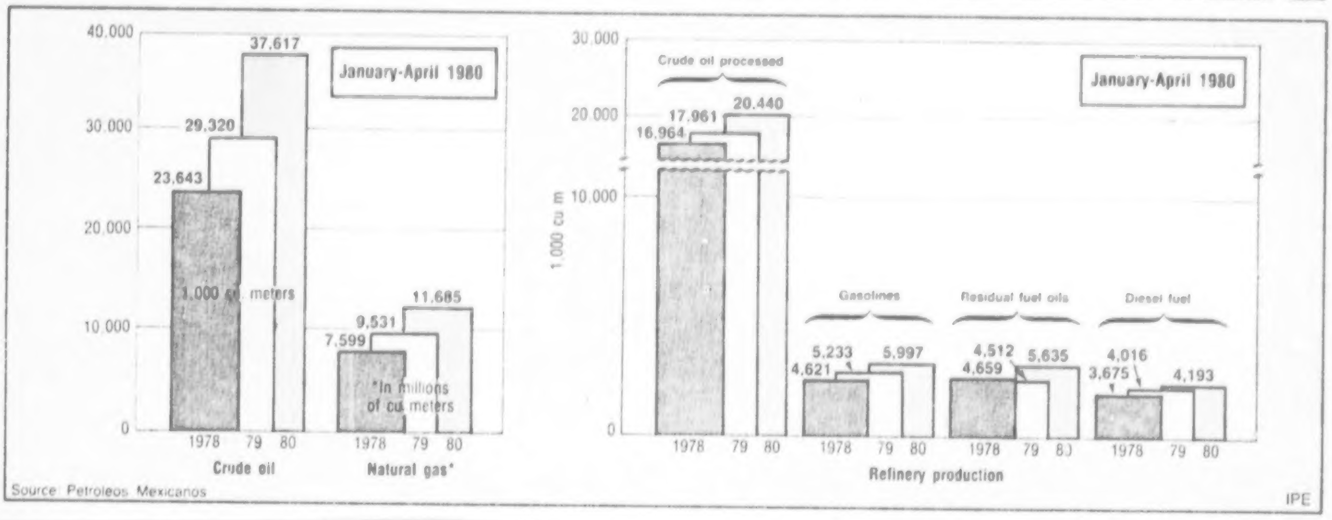
Export figures from January-May 1980 Source: Banco de Mexico, S.A.

IPE

OFFSHORE

Mexico's petroleum production

2

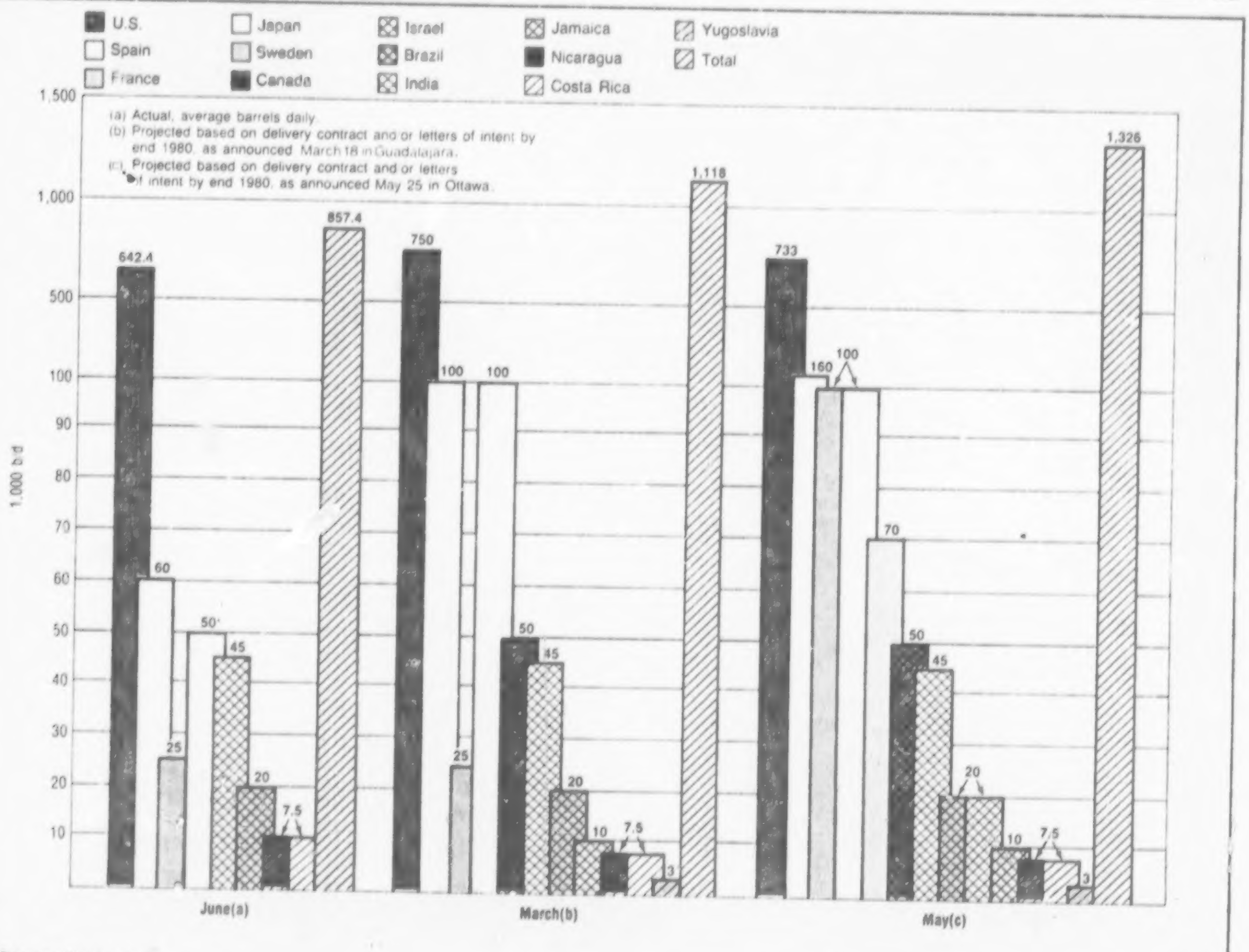


Source: Petroleos Mexicanos

IPE

Export sales of crude oil by country

3



(a) Actual, average barrels daily.
(b) Projected based on delivery contract and/or letters of intent by end 1980, as announced March 18 in Guadalajara.
(c) Projected based on delivery contract and/or letters of intent by end 1980, as announced May 25 in Ottawa.

rce: Petroleos Mexicanos

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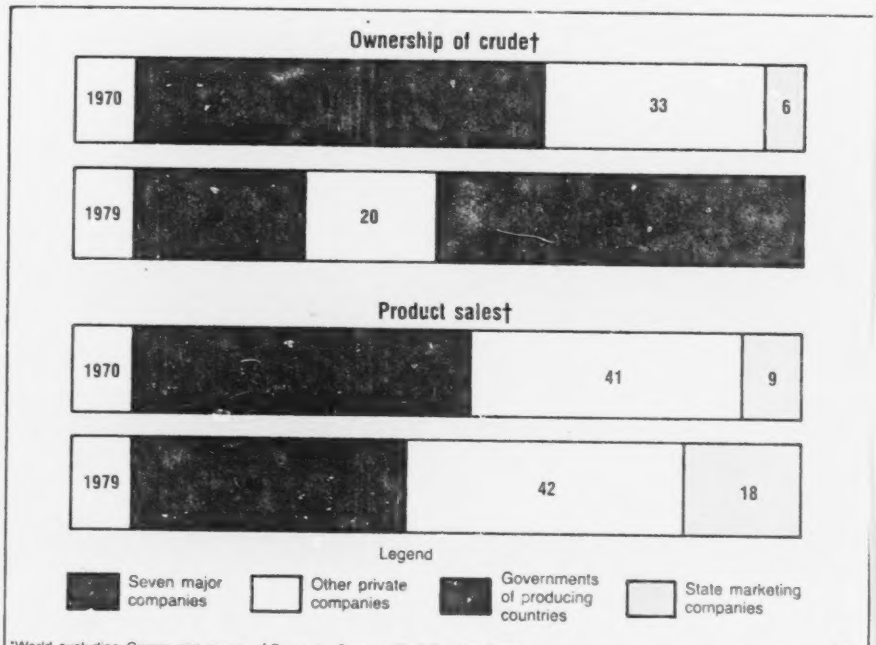
GOVERNMENT

The shift in oil ownership, product sales*



*World excluding Communist areas. †Percent. Source: Shell Briefing Service

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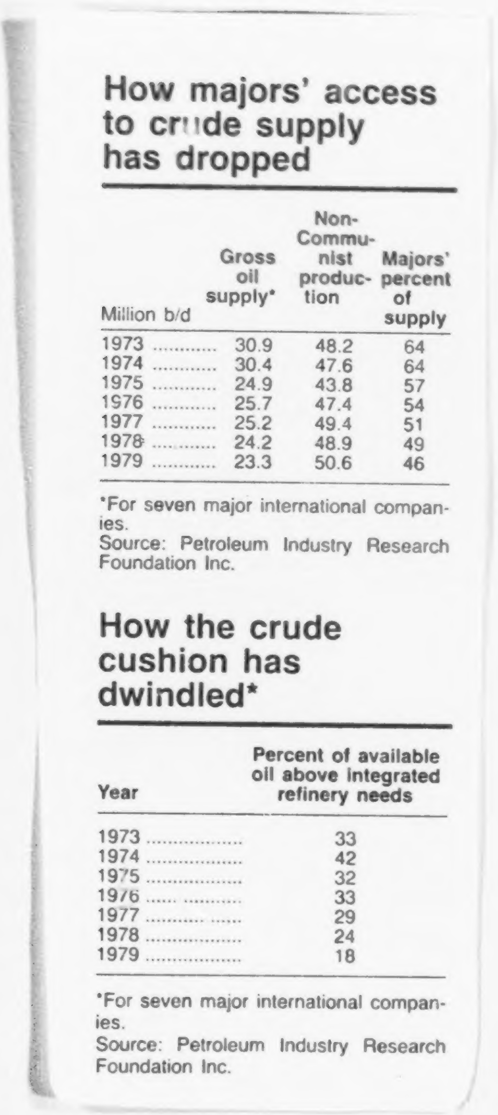

How majors' access to crude supply has dropped

Million b/d	Gross oil supply*	Non-Communist production	Majors' percent of supply
1973	30.9	48.2	64
1974	30.4	47.6	64
1975	24.9	43.8	57
1976	25.7	47.4	54
1977	25.2	49.4	51
1978	24.2	48.9	49
1979	23.3	50.6	46

*For seven major international companies.
Source: Petroleum Industry Research Foundation Inc.

How the crude cushion has dwindled*

Year	Percent of available oil above integrated refinery needs
1973	33
1974	42
1975	32
1976	33
1977	29
1978	24
1979	18

*For seven major international companies.
Source: Petroleum Industry Research Foundation Inc.

MAJOR COMPANY REPORTS

Capital and exploration expenditures

(U.S. $ Million)	1973	1974	1975	1976	1977	1978	1979	1980
	Capital and Exploration Expenditures							
Amerada Hess	242	423	283	291	422	353	659	NA
Ashland	176	283	216	252	501	317	292	NA
Atlantic Richfield	500	1,751	1,751	1,826	1,681	1,358	1,823	NA
British Petroleum	930	946	1,751	2,167	1,765	2,409	2,766	2,416
C.F.P. (Total Group)*	600	1,000	826	1,249	899	739	697	NA
Cities Service	402	439	439	524	501	637	758	1,087
Conoco	477	681	844	797	853	1,113	1,586	1,768
E.N.I.	874	1,015	1,169	1,481	1,346	1,478	1,922	NA
Exxon	2,235	4,520	3,654	5,100	4,600	5,300	7,400	8,000
Getty	437	520	513	618	684	865	1,239	1,345
Gulf	979	1,564	1,546	1,742	3,013	2,129	2,513	2,968
Kerr-McGee	113	228	235	333	269	270	389	575
Marathon	169	273	273	1,067	557	590	790	947
Mobil	1,334	1,652	1,469	2,485	1,786	2,175	3,812	4,649
Murphy	118	215	215	175	263	285	317	382
Occidental	109	267	321	370	390	510	566	NA
Pennzoil	251	236	217	247	264	344	369	524
Phillips	329	567	679	716	1,078	940	1,454	1,666
Shell Group	1,357	2,071	3,113	4,188	5,227	5,252	9,034	NA
Std. Calif.	1,217	2,271	2,360	1,705	1,429	1,692	2,258	3,599
Std. Indiana	1,100	1,876	2,114	1,774	1,874	2,240	3,028	4,326
Std. Ohio	193	700	1,642	1,700	1,087	762	602	1,007
Sun	284	537	657	616	667	717	852	NA
Tenneco	402	663	550	620	714	1,008	1,477	1,825
Texaco	1,334	1,674	1,864	1,583	1,564	1,581	1,642	3,077
Union	391	686	680	798	813	782	1,088	1,700

*Converted to U.S dollars using exchange rate in effect December 31, 1979.
Source: Annual reports

Gas production

	(MMcfd)							
	1973	1974	1975	1976	1977	1978	1979	1980
Amerada Hess	743	707	653	591	625	591	638	NA
Ashland†	305	287	311	313	215	233	153	NA
Atlantic Richfield*	2,138	1,976	1,819	1,748	1,642	1,517	1,486	1,388
British Petroleum*	407	335	300	350	358	385	332	309
C.F.P. (Total Group)*	14	17	33	51.	117	293	470	NA
Cities Service	1,127	1,149	1,084	1,042	958	945	907	849
Conoco	1,522	1,617	1,551	1,606	1,579	1,504	1,472	1,364
ENI	1,413	1,412	1,255	1,401	1,268	1,330	1,328	NA
Exxon*	9,767	9,842	10.645	10,678	10,488	10,368	10,181	9,400
Getty	1,261	1,190	1,118	993	892	797	883	878
Gulf	3,360	3,028	2,433	2,035	2,167	2,153	2,176	2,032
Kerr-McGee*	296	285	244	247	222	230	244	236
Marathon	419	413	385	440	463	425	447	562
Mobil	3,682	3,581	3,311	3,146	3,240	3,270	3,649	3,599
Murphy	NA	NA	90	92	85	110	146	166
Occidental	66	55	49	49	48	57	70	82
Pennzoil	675	748	547	501	509	587	622	621
Phillips	1,603	1,570	1,455	1,380	1,343	1,549	1,558	1,497
Shell Group*	6,351	6,787	6,621	6,714	6,674	6,439	6,516	NA
Std. Calif.	1,985	1,883	1,800	1,789	1,778	1,712	1,732	1,739
Std. Indiana	3,935	3,635	3,388	3,272	3,286	3,263	3,328	3,057
Std. Ohio*	110	110	90	79	86	83	81	80
Sun	1,523	1.421	1,392	1,330	1,271	1,171	1,200	NA
Tenneco	972	1,040	1,200	1,149	1,107	1,108	1,157	1,139
Texaco*	4,516	4,343	4,035	3,927	3,883	3,894	3,646	3,103
Union	1,534	1,540	1,442	1,391	1,290	1,255	1,266	NA

*Sales. †Year ended Sept. 30.
Source: Annual reports.

Refined product sales

(Thousands b d)	1973	1974	1975	1976	1977	1978	1979	1980
Amerada Hess	615	591	523	580	648	642	623	NA
Ashland	474	436	441	478	517	509	531	NA
Atlantic Richfield	896	802	761	812	829	831	860	788
British Petroleum	2,200	1,960	1,760	1,920	1,940	2,380	2,620	2,390
C.F.P. (Total Group)	1,193	1,195	1,131	1,186	1,183	1,259	1,292	NA
Cities Service	276	265	278	290	298	308	292	276
Conoco	654	611	594	592	601	642	622	546
ENI	515	779	705	790	751	795	930	NA
Exxon	6,178	5,505	4,990	5,353	5,266	5,390	5,319	4,936
Getty	273	280	280	285	306	303	305	351
Gulf	1,781	1,673	1,610	1,609	1,669	1,683	1,684	1,346
Kerr-McGee	112	217	229	217	220	206	171	158
Marathon	349	349	370	441	567	612	624	523
Mobil	2,482	2,227	2,211	2,264	2,299	2,374	2,362	2,259
Murphy	154	145	138	141	138	142	131	109
Pennzoil	35	46	69	67	62	65	66	56
Phillips	637	601	611	577	532	516	508	509
Shell Group	5,819	5,052	4,620	4,652	4,691	4,900	4,712	NA
Std. Calif.	2,259	2,184	2,116	2,339	2,455	2,456	2,479	2,374
Std. Indiana	1,234	1,181	1,166	1,245	1,294	1,371	1,316	1,168
Std. Ohio	385	333	351	403	407	427	430	414
Sun	647	658	687	728	678	685	678	NA
Tenneco	125	144	157	153	154	152	137	126
Texaco	3,472	3,446	3,241	3,277	3,227	3,236	3,138	2,824
Union	487	456	434	453	439	458	463	NA

Source: Annual reports.

Net income, gross operating revenue

(U.S. $ million)	1975		1976		1977		1978		1979		1980	
	Net income	Gross op. rev.	Net income	Gross op. rev.	Net income	Gross op. rev.	Net income	Gross op. rev.	Net income	Gross op. rev.	Net income	Gross op. rev.
Amerada Hess	131	3,180	161	3,914	182	4,591	139	4,701	507	6,770	540	7,956
Ashland	114	3,924	141	4,407	164	5,051	148	5,426	176	6,740	197	8,520
Atlantic Richfield	350	7,747	575	8,918	702	11,413	804	12,739	1,166	16,677	1,536	24,156
C.F.P. (Total Group)†	174	9,456	51	11,439	63	12,901	109	13,595	1,509	17,765	NA	NA
British Petroleum†	415	21,170	750	28,543	795	33,031	987	38,983	3,598	50,407	3,430	60,579
Cities Service	138	3,201	217	3,964	210	4,388	118	4,661	348	6,277	478	7,786
Conoco	326	7,666	456	8,352	381	9,052	451	9,872	815	13,083	1,026	18,766
ENI†	(182)	8,390	(105)	12,591	(389)	14,518	(439)	16,672	52	22,890	NA	NA
Exxon	2,456	48,764	2,615	52,592	2,443	58,460	2,763	64,886	4,295	84,809	5,660	110,469
Getty	261	3,174	266	3,275	321	3,544	330	3,758	604	5,121	872	10,437
Gulf	700	15,838	816	18,117	752	19,595	791	19,892	1,322	23,266	1,307	28,790
Kerr-McGee	131	1,799	134	1,955	119	2,165	118	2,072	160	2,683	182	3,478
Marathon	128	3,161	195	3,828	197	4,657	225	4,955	323	7,200	379	8,754
Mobil	810	20,620	942	28,046	1,026	34,443	1,131	36,684	2,007	47,485	2,819	63,652
Murphy	40	951	49	1,020	47	1,148	47	1,218	104	1,596	151	2,017
Occidental	176	5,397	130	5,609	154	6,080	7	6,316	562	9,638	711	12,476
Pennzoil	88	104	112	1,195	100	1,280	128	1,553	239	2,052	309	2,483
Phillips	335	5,134	416	5,698	531	6,284	718	6,998	891	9,503	1,070	13,377
Shell	1,991	33,873	2,683	46,623	3,071	53,438	2,422	53,777	6,804	66,111	NA	NA
Std. Calif.	781	18,172	877	20,563	992	22,238	1,089	24,597	1,785	31,755	2,401	42,900
Std. Indiana	799	11,147	891	12,690	1,032	14,263	1,076	16,350	1,507	20,197	1,915	27,831
Std. Ohio	127	2,507	136	2,916	181	3,523	450	5,198	1,186	7,916	1,811	11,023
Sun	242	4,465	381	5,431	412	6,437	415	7,494	700	10,666	785	13,200
Tenneco	334	5,891	361	6,638	417	7,480	452	8,877	571	11,338	726	13,226
Texaco	823	25,096	810	26,932	890	28,444	853	29,124	1,759	39,096	2,240	52,486
Texas Eastern	99	1,298	107	1,547	124	2,016	137	2,028	181	2,944	NA	NA
Union	237	5,086	286	5,781	334	6,099	382	6,490	501	8,082	647	10,437
Union Pacific (Champlin)	149	1,755	188	2,065	222	2,554	264	2,989	382	4,029	NA	NA

*Excludes nonrecurring gains & losses when their effect can be determined.
†Converted to U.S. dollars using exchange rate in effect December 31, 1979.
Source: Annual reports

Net production of crude oil and NGL

(Thousands of b/d)

	1973	1974	1975	1976	1977	1978	1979	1980
Amerada Hess	215	157	156	169	178	177	191	NA
Ashland	51	55	58	65	37	37	25	NA
Atlantic Richfield	656	596	594	511	563	643	568	589
British Petroleum*	4,780	4,440	3.440	3,540	3,390	3,720	3,260	NA
C.F.P. (Total Group)*	1,620	1,772	1,454	1,510	1,430	1,437	1,409	NA
Cities Service	249	243	231	225	214	208	204	187
Conoco	586	460	436	461	464	469	482	458
ENI	374	337	290	316	309	356	367	NA
Exxon	†6,718	†6,367	4,959	5,325	5,091	4,691	4,444	4,011
Getty	420	418	409	398	431	444	425	416
Gulf	3,140	1,815	2,040	1,801	1,687	1,591	1,733	1,178
Kerr-McGee	38	37	35	38	38	35	33	33
Marathon	441	377	265	290	311	299	304	290
Mobil	†2,522	2,357	2,144	2,063	2,278	2,024	2,180	1,984
Murphy	52	52	48	46	52	52	52	62
Occidental	NA	174	150	173	254	326	351	296
Pennzoil	47	54	45	43	42	45	42	37
Phillips	338	338	365	384	403	444	436	452
Shell Group	6,729	5,917	4,786	4,732	4,847	4,714	4,555	NA
Std. Calif.†	3,170	3,815	3,025	3,542	3,403	3,289	3,199	3,009
Std. Indiana	875	874	945	932	1,004	1,032	849	836
Std. Ohio	51	52	50	42	183	535	611	716
Sun	369	384	363	294	284	275	237	NA
Tenneco	81	79	82	89	93	94	99	95
Texaco	4,286	4,307	3,591	3,860	3,786	3,410	3,475	†3,316
Union	380	364	357	349	335	312	265	NA

*Crude only. †Gross.
Source: Annual reports.

Crude runs to stills

(Thousands b/d)	1973	1974	1975	1976	1977	1978	1979	1980
Amerada Hess	492	530	519	551	596	585	560	NA
Ashland	338	330	331	348	358	353	368	NA
Atlantic Richfield	746	700	722	723	775	815	823	727
British Petroleum	2,340	2,100	1,720	1,900	1,860	2,000	2,290	NA
C.F.P. (Total Group)	1,108	1,141	970	1,028	1,010	1,051	1,079	NA
Cities Service	235	232	250	250	252	256	260	238
Conoco	548	501	465	464	457	455	494	402
ENI	554	701	624	794	736	785	887	NA
Exxon	5,761	5,183	4,331	4,359	4,348	4,427	4,354	4,150
Getty	239	250	256	282	280	281	275	269
Gulf	1,742	1,951	1,701	1,697	1,766	1,766	1,753	1,384
Kerr-McGee	39	129	153	165	165	145	123	113
Marathon	313	320	339	390	537	564	541	471
Mobil	2,365	2,114	2,060	2,049	2,075	2,064	2,063	1,978
Murphy	94	92	91	91	94	106	111	91
Pennzoil	36	48	51	53	56	49	56	53
Phillips	397	374	370	318	297	302	287	262
Shell Group	5,554	4,873	4,258	4,191	4,286	4,242	4,221	NA
Std. Calif.	2,248	2,134	2,105	2,257	2,301	2,205	2,234	2,186
Std. Indiana	1,100	1,070	1,104	1,176	1,212	1,286	1,200	1,042
Std. Ohio	382	323	364	405	423	421	429	401
Sun	580	570	596	605	609	622	608	NA
Tenneco	77	80	84	85	91	88	92	91
Texaco	3,052	3,060	2,772	2,860	2,870	2,788	2,857	2,533
Union	472	421	439	425	437	419	429	NA

Source: Annual reports.